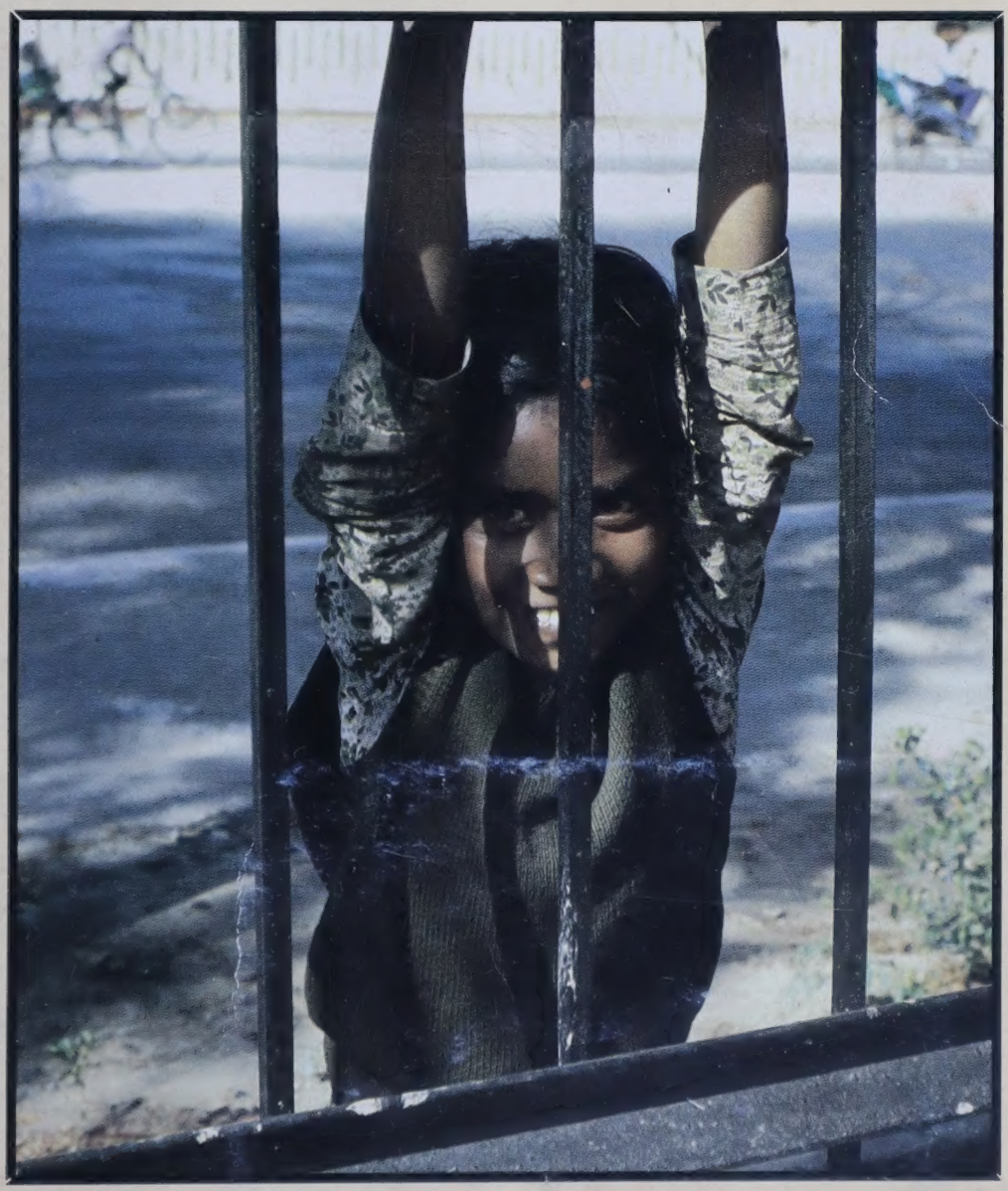
CANADIAN UNIVERSITIES ROLE IN INTERNATIONAL HEALTH (HEALTH FOR ALL BY THE YEAR 2000)



Edited by David Shires
Lynette Mensah
Daniel O'Brien

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SPONSORED BY

Association of Universities and Colleges of Canada
Canadian International Development Agency
Lester Pearson Institute (Dalhousie University)
Pan American Health Organisation

ADDITIONAL ACKNOWLEDGEMENTS FOR FINANCIAL CONTRIBUTIONS

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INTRODUCTION

It is seldom that one has the opportunity to attend a conference which can be described as exciting and where enthusiasm in the small group discussions was infectious.

Such a conference took place at Dalhousie University in Halifax on November 8/9 1985. Our pleasure was to be the editors for the Proceedings of this stimulating event, a task made considerably easier by the clarity and excellence of the presentations and the hard work and clear perceptions expressed by the task-oriented small group participants.

The invited participants at this conference came from Colleges and Universities across the length and breadth of Canada, representing many health disciplines and wide-ranging experiences. The disciplines represented included: medicine, nursing, health administration, nutrition, pharmacy, social work, physiotherapy, dentistry, health education, environmental science, biology, development education, library science, economics, occupational therapy and psychology. The expertise ranged from student to dean.

In addition there was an active involvement by representatives from a number of government agencies including C.I.D.A., I.D.R.C., and Health & Welfare Canada, and non government agencies such as P.A.H.O.

As John Last noted in his editorial on Global Independance (Canadian Journal of Public Health 76: 369 - 370 : Dec 1985)

> "It was a great opportunity to go beyond an exchange of ideas, towards a consensus about how we in Canada could best contribute to the solution of health problems in developing countries. There were purposeful discussions about ways in which our often uncoordinated efforts could be better directed to avoid gaps and needless overlaps - - - - - - and one sentiment expressed in unmistakable terms by many participants at Dalhousie was that we could do much more if we worked together."

This working together of regional universities, NGO's and public health agencies and the active participation and support at the national level from the I.D.O. office at A.U.C.C., could indeed be the next step in the process that began in Halifax.

The President of C.I.D.A., Mrs. Margaret Catley-Carlson, made it clear in her speech that she would welcome such an innovative idea for a funding proposal. In these economically tough times, such an invitation should be a welcome stimulus to all institutions interested in working in the international health arena and seeking C.I.D.A. financial support. It is now up to those regional institutions to pull together their multidisciplinary strengths and come forward with innovative ideas for working together.

Following the distribution of these Proceedings, we hope that there will be an increased communication between the various disciplines represented at the conference and perhaps in a reasonable period of time we could have an update meeting to see what progress has been made. Clearly a great deal needs to be done. We trust that the readers of these Proceedings will agree with the editors choices of material selected for inclusion. We hope that we were able to satisfy the majority.

ACKNOWLEDGEMENTS

The editors would also be clearly remiss if we did not at least try to thank in print the many people who gave up a great deal of their time, energy and some of their resources to make this conference a success. Acknowledgements to official sponsors and financial supporters are made elsewhere in these Proceedings. But, it is people who make a conference a success! We would therefore like to thank a number of people who helped in planning and running the conference. They are not named in any order of priority and no doubt we may have omitted a name for which we apologise to that individual in advance. We would like to thank: The International Health Group Dalhousie University, President Andrew MacKay for the wonderful reception, the Audio - Visual department, the Student Union Administration, staff of the Lester Pearson Institute, the Faculty club and the host institution Dalhousie University, Bob Kanygin, Robert Keddy, John Devlin, Debbie Chiasson, and Norbert Prefontaine of Health and Welfare Canada for assisting with finding funding. We would also like to pay particular thanks to John Cavill of Air Canada who was of great assistance in ensuring the safe travel of participants to and from their home institutions.

Finally, we wish to pay special thanks for the continuing encouragement and support we received from Ralph Campbell and Father Gullbeault at the I.D.O. office of the A.U.C.C., without whose insight and forebearance the conference would never have been possible.

And last, but by no means least, we wish to thank the participants, with whom we look forward to working in the future to continue the initiative that began at Dalhousie in November of 1985.

David Shires
Lynette Mensah
Daniel O'Brien
Proceedings Editors

January 1986

THE GLOBAL HEALTH REVOLUTION - WHAT ROLE FOR OUR UNIVERSITIES?

Margaret Catley-Carlson, President of C.I.D.A

Thank you for inviting me, and congratulations to the people who organized this conference. Your initiative and hard work could hardly be better timed or better directed.

I will try not to belabour the generalities this morning - when it comes to primary health care and the "Gospel according to Alma Ata", I expect most of you are disciples or at least early converts, with zeal matching or even surpassing my own. What I will try to do is give you an update from the frontlines, where the forces of world development face the awesome problems of global health. I will outline Canada's role to date, then attempt to peek into the future, then get down to brass tacks about what I think you can do to ensure that you are part of that future.

To serve as a startling point, perhaps we need a rough sketch of the overall, global health picture. I see two main elements in that picture. There is the rich quarter of the world - mainly the people of the developed or industrialized countries, plus a small elite in the Third World - where a great deal of money is spread pretty thick providing high standards of health care. Alas, an ever-increasing share of this money seems to be going, with marginal results and eroding cost-effectiveness, into combatting the effects of excessive, unhealthy life-styles, and into extending, briefly, the life of the incurably ill.

The other element is the poor three-quarters of the world - mainly the people of more than a hundred developing countries. In Africa, Asia, Latin American, the Caribbean, and within certain minority groups in rich countries - where very little money is spread extremely thin across too many people. Many lives are threatened, and often shattered, by diseases and conditions supposedly vanquished long since by medical science. This is particularly true for children and for women, who in many countries are the last to eat and the first to die. If numbers can help us to appreciate the contrast between the rich and poor parts of the world, we can ponder the average annual government health expenditure figures - $1100 per Canadian, $8 per African.

This picture screams of injustice, and we all want to change it - but we know that poverty and the ancient ills of the world are stubborn and enduring, while our weapons for the battle are too few, and sometimes they misfire. So, in a time of tough economics and lowered expectations, when funding is hard to come by, when we see a whole continent, Africa, apparently moving toward disaster, it would be easy to mock the slogan and say, not 'Health for All by the Year 2000' - at best, 'Health for All in 2000 Years.' But, amazingly, there <u>is</u> some good news.

A year and a half ago, I attended a meeting of development people, there was hopeful talk about good intentions for progress in the developing countries

in the field of public health, and I came away thinking, "A nice meeting, but mostly pipe-dreams." A few weeks ago I attended the follow-up meeting in the same series - and the evidence of achievement was downright startling.

Nothing is so powerful as an idea whose time has come - and the health idea whose time seems to have come, at long last, is mass immunization of the world's children. Progress reports poured down. Columbia has had two massive national immunization days, pushed hard by President Betancur, and the rate of coverage has risen from the 20 to 30 per cent range up into the neighborhood of 60 to 70 per cent. There was little coverage in our media, beyond the New York Times, but El Salvador actually managed to stop the civil war briefly for its immunization day. Burkina Faso taught its soldiers to administer the vaccines and has reached about two-thirds coverage of its children. Nigeria is aiming at global coverage in three years. India has massive, detailed plans for a nationwide program as a living memorial to the late Mrs. Gandhi. China intends to achieve an 85 per cent rate - which amounts to full coverage - in 80 per cent of her states by 1988, and I expect the goal will be met. Indonesia is moving too, following the pattern set by its very successful village-level family planning program. Rotary International has pledged massive efforts - on the scale of $120 million of support - to help eliminate polio by the year 2005.

I do not know why the log-jam broke now. In some countries, the personal commitment of political leaders has started things moving. Maybe the successful model of the smallpox eradication campaign has sunk in - and the lesson that we save more each year by not needing immunization programs, than the total cost of the eradication campaign. Maybe it took a few years for the enlightenment of Alma Ata to spread. Maybe the tireless preaching of the World Health Organization and UNICEF's strong rhetoric about a global survival strategy for children have finally overcome the inertia of things. In any case, support is starting to come from donor countries too. Italy has pledged an impressive $100 million with the goal of full immunization of the children of Africa and, you will recall, that Prime Minister Mulroney announced last month a $25 million Canadian commitment to immunization campaigns in the member countries of the Commonwealth. So, despite all the obstacles, I think we are moving into a new and exciting phase of the global health revolution. I think, after the depressing days of last winter, when we saw on each night's news African children dying, we have a good chance of seeing some dramatic cuts in that perpetual toll, year after year, of an estimated 15 million children killed by the deadly combination of malnutrition and preventable disease. If we do things right, we are about to see the sun rise on a new day for the children of our world.

Canada, of course, has an ongoing aid program with a certain approach to the health sector. During the 1970s, the Canadian International Development Agency (CIDA) moved steadily away from the earlier pattern - which amounted to transplanting parts of the Western health-care model into Third World settings. This was not only ineffective but costly, both in dollars and lives. As Ivan Illich put it, every dollar spent on doctors and hospitals cost a hundred lives

- because that dollar should have been spent on clean water or preventive, primary health care.

For some years now, CIDA's health programs have recognized this. Very briefly, CIDA at present helps to fund some 500 health projects, mostly small grassroots efforts, sponsored by Canadian non-governmental organizations. We contribute to international health organizations, such as WHO and UNICEF, and we have about thirty bilateral projects underway with a health or population focus, such as village health worker training in isolated regions of Nepal, vector-borne disease control (including malaria) in Burma, rural water supply and health education in Ghana, immunization in Pakistan, and village dispensaries in Malawi. To sum it up in one phrase, basically CIDA supports primary health care.

There is, of course, another important Canadian institution involved in all of this too, and I would really like to pay tribute to the very valuable contributions of the International Development Research Centre. Like CIDA, the IDRC works with people who want to improve their well-being through efforts in the complementary fields of agriculture, human resources and health. One of the main thrusts of IDRC's health sciences program is supporting Third World research to improve the health of mothers and children. Immunization programs are basic to this. IDRC supports research, for instance, on the impact of malnutrition on the effectiveness of various types of vaccines ... on developing vaccines appropriate for use in tropical villages ... on how to get active, unspoiled, vaccines to those villages. These and other IDRC initiatives will obviously increase the impact of CIDA's work in support of immunization.

It would be nonsense to talk about Canada's contribution to world health without recognizing the role that our universities have played. I cannot take the time to name each institution and each project, but few indeed of CIDA's health projects could exist without such support. In some cases - such as McMaster's role in the Aga Khan School of Nursing in Pakistan - you are not only helping a developing country to advance toward better health, but your work may also be having a direct and beneficial impact upon social values by, for example, enhancing women's potential contribution and the roles open to them. There is also the work of the University of Calgary, through which Nepali medical students benefit from an innovative educational experience in a joint program, which the Government of Alberta has recognized with enabling legislation to permit Nepali graduates to receive Alberta degrees - a quite unique step in cooperation and partnership, and the very definition of Canada has become nutrition from Moncton University, for project partners in Nicaragua. In large countries and small, on remote islands and now against the immense backdrop of China, Canadian universities are contributing in teaching and training, nutrition and pediatrics, rural and family health, and a dozen other vital areas.

But more can be done, and we need to look ahead if you are to be fully active in the next act of the drama. In, the next 15 years, the finale of the 20th century, as the global health revolution rolls on, I hope we will witness a scenario which includes these elements:

- immunization of virtually all children against the common diseases of childhood
- development of successful vaccines against such major Third World diseases as malaria and leprosy
- the effective eradication, of small pox, and some of mankind's age-old enemies
- the spread of grassroots, community-based primary health care networks as a normal feature of daily life in the developing countries
- no more children going blind for lack of a few cents worth of vitamin A, or dying of preventable diseases that should have been wiped out decades ago
- a world where it can be expected that a child will grow up healthy no matter where he or she happens to be born.

The big question for this meeting is: what can our universities do to prepare to play the fullest possible role? I find it very encouraging, even exciting, to see how far you have come in the past couple of years, through the Banff conference and now this Halifax session.

Priorities and an agenda for your activity have taken shape. I would like to offer a few thoughts on the various issues or concerns that have emerged.

Most universities have made headway in creating an organizational focal point for international programs, usually called the international office. This certainly helps. Perhaps the most important challenge is to ensure that they are an authentic part of the university, rooted in its basic education, research and service goals. But I don't mean by this that they should be an effective sales outlet, packaging your most prestigious expertise and marketing it to CIDA and the multilateral agencies - in the long run, I don't think that would be in anyone's best interest.

What I do hope your international offices can do is catalyze or pull together the best things our universities can offer, the most valuable contributions you can make to world health. And most of this, to be brutally frank, may not come from our faculties or medicine.

For starters, we need Canada's universities to get their act together so well that they can provide multidisciplinary expertise, adapted to developing country problems. Experience shows that health cannot be seperated from development, so other sectors in the university and communities must be closely involved. Management expertise, for example, needs to be usefully packaged in a way that will help developing countries tackle their particular problems, as they define them. This is no small order: the ingrained tendency of faculties to work alone must be overcome. Powerful doctor-officials must come to believe that, say, the school of nursing know better. But you will see the dimensions of this particular challenge far more clearly than any outsider.

There are practical measures to take in various directions - developing all possible sources of funding (provincial, federal, and international); working out better arrangements for providing appropriate training for the more basic kinds of tasks involved in Third World primary health care programs; networking of Canadian expertise to overcome the isolation of individuals, and to bring stronger resources into play; advocacy of health programs with national and international funding organizations.

This brings us to a key question, for universities but also for development agences - research. Health has traditionally had a rather low priority, when funds are being portioned out for international development, and I think one of the main reasons is because we don't have the research data to make the case for health investments.

True, we have aggregate, quantitative data on a national basis, much of it inevitably sketchy, shaky - and useless. True, we have occasional flashes of enlightenment - through, for example, some information reported at your Banff conference: the fact that 87 per cent of women in less-developed countries are illiterate, while research indicates that even one year of education for girls cuts the infant mortality rate by 9 points per thousand when they become mothers. Fascinating, meaningful - but for the most part, we don't have the detailed, family-level, season-specific research that we need in order to justify health investments in eoncomic terms, or to measure the health impact of projects in other sectors.

For instance, one of the few such studies done - a student's thesis - showed, in Cameroon, a 23 to 1 benefit-to-cost ratio for measles prevention, a persuasive argument in encouraging government efforts in that direction. But many problems and questions haven't even been looked at, and offer in many cases a real challenge to any university's best minds. We know that the infamous Aswan dam spread schistosomiasis among the local people; we also know that it saved Egypt from disaster during the recent drought - but we don't know the bottom line, in terms of health. We know that irrigation from the Blue Nile has enabled peasants in Sudan to grow more cotton; we know it has also spread malaria, which peaks at harvest-time - but we don't know the net gain or loss. We know that health effects productivity, but we still can't measure the costs of ill-health, and we still do not really understand exactly how the impact of an immunization campaign fits into the whole picture of a national economy. So we certainly need you to help us with health impact studies.

I would get very excited if I received a well-thought-out submission from a consortium of Canadian universities and community colleges proposing, for example, a useful role for Canadian health-sciences students in strengthening a developing country's immunization services. Perhaps it might take the form of a plan for Canadian students to work alongside their counterparts and learn in the field about planning and management of health services - or it might involve students in some area of communication or non-formal education or in work to increase acceptance of public health services somewhere in the Third World. I would be more or less ecstatic if this hypothetical proposal was free of the pavement-and-sunshine bias that tilts most research toward the easy places

and the pleasant seasons, which is precisely where and when the important answers won't be found. But I don't often see proposals like that.

In closing, I will just say that we need your help, you have much to offer, and this is a plus-sum game where we can all be winners. Our clients - the people of the developing world - can gain life itself. We, the international developers, can gain insight and effectiveness in our efforts. You, the universities, can gain not just funding and jobs, but a great deal else by showing the responsible leadership, the intellectual initiative, and the broader vision that have always made up your right role.

THE ROLE OF THE UNIVERSITIES IN INTERNATIONAL HEALTH: HEALTH FOR ALL BY THE YEAR 2000

Carlyle Guerra De Macedo, Director, P.A.H.O.*

It is a great pleasure for me to have this opportunity to address this Conference and to share with you some of my ideas on the role of universities in relation to the attainment of "Health for All" in the Americas. A discussion of this topic entails consideration of the relations between health and education, as components of the overall development process.

"Health for All in the Americas"

The Americas are a region of marked differences and contrasts. It includes two of the most highly developed countries and some of the poorest areas in the world, as well as several situations between those two extremes. To facilitate our analysis, I will consider the Americas in two parts: the developed America, consisting of the United States and Canada; and the developing America, comprising the countries of Latin America and the Caribbean.

The Developing America

Although presenting marked differences, the general situation of the Latin American and Caribbean countries is characterized by a few variables common to all.

Firstly, a population that - especially in Latin America - is still growing apace, despite a significant decline of fertility in recent years. By the year 2000 the combined population of Latin America and the Caribbean is expected to grow to about 540 million persons, which means that in fifteen years, today's 370 million people will be joined by an additional 170 million. It is today, and will still be in the year 2000, a young but rapidly aging population. The numbers of people over 60 should double to almost 40 million, or slightly more than 7% of the total population; in some countries it has already increased to more than 10%, or will do so by the end of the century.

Another important feature of Latin America is its urbanization. In the year 2000 more than 75% of the people will be living in cities, and fewer people will remain in the rural areas, as compared to the numbers that live there today. The pattern of urban growth is set by the unbridled growth of the major cities - gigantic urban sprawls with inadequate infrastructures and plagued by unmanageable problems of pollution, unemployment, violence, danger and deprivation. The cultural change associated with the urbanization of Latin America is proceeding with precipitous speed: what in other societies had taken centuries, is being accomplished here in just a few decades. And this

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* Pan American Health Organization, Pan American Sanitary Bureau, Regional Office of the World Health Organization.

change is infiltrating the rural regions, thus resulting in the cultural urbanization of rural populations.

In addition to the social disruptions in progress, these changes are inducing shifts in patterns of behaviour in regard to health, and particularly in the demand for services, as well as in the use of such services. Today's demand calls for more complex sevices and is backed by an increased capacity for exerting pressure.

Yet another feature of the present situation in Latin America and the Caribbean is the economic crisis, with its political and social ramifications in other areas, including health. Beyond limitations on funding and income, and beyond any restrictions on the ability to import - to mention but a few - the crisis attests to the shortcomings of the development models adopted in the region, and of the world economic system as a whole. Before the crisis, two decades of steady economic growth could not mitigate the abysmal social inequalities expressed in the income distribution pattern and particularly in the living conditions of more than 130 million people subsisting in a state of extreme poverty; this is 36% of the total population of Latin American and the Caribbean, but in some countries the proportion is more than 80%. In this situation, new ways of dealing with the crisis have to be found to attain the main objective of meeting the basic needs of the population, and this also means that new development schemes are needed. In consequence, the intersectoral approach to health and the relationships between health and the rest of the development process, not only conceptually, but at the policy and methodology levels as well, become basic aspects of "Health for All."

The characteristics and trends of this general situation are creating a most peculiar situation in the health field. The persistence of the problems linked to poverty - communicable diseases and malnutrition, among others - is accompanied by the rapidly growing importance of the chronic-degenerative problems and the risks inherent in natural and social environments adversely affected by economic activity and other social factors. Health services are few and poor, and are largely oriented to the complex problems associated with the privileged few: 80 to 90% of resources for the care of individuals are allocated to the secondary and higher levels of care, while about one third of the population has no regular access to essential primary care services. In the health field, the magnitude of global social deprivation is acquiring alarming proportions: more than 100 million human beings with signs of malnutrition and 700,000 deaths a year that could be avoided with better use of the available resources.

The waste that results from the problems of organization, management, occupational and social behavior patterns, inadequate technology, and services that are simply unnecessary, amounts to more than 35% of the existing resources. Inequity and inefficiency are mutually complementary aspects of this situation. A distinctive expression of this is imbalances in the manpower supply in the health sector, because of inappropriate training and use of personnel, which are in tandem with the distortions that can be seen in health practices and health service systems.

There are comparable distortions in the education sector. The most important of these is the disproportionate imbalance between levels of instruction. In Brazil, for example, seven million children between the ages of 7 and 14 do not attend school and at the same time, the country has more than a million and a half students at the university level. In the last 20 years the number of openings for enrollment in universities has multiplied under social pressure, higher education being perhaps the main - and at times the only - path to social advancement. On the whole, however, this increase did not trigger the renewal of social relations to reduce social inequalities and injustices, nor did it introduce practices geared toward the satisfaction of the basic needs of the majority in those countries. To the contrary, it consolidated distortion and privilege, and in the health area reinforced the trend toward the concentration of services and complexity of care.

In short, "Health for All" is a goal still unreached in the developing Americas. Measured against the magnitude of their needs, the gains made are still very slight.

The Developed America

There is no need to dwell here on the particular situation in the United States and Canada. My only comment is that, despite the volume of resources available and the expenditure incurred - more than 1,500 dollars on health care per person per year in the United States - many problems still stand in the way of "Health for All". This is much more evident in the United States than in Canada, but here, too, such problems exist.

It is interesting to note that the primary care strategy for addressing many of these problems is as valid in North America as it is in Latin America; that technological and organizational problems arise in both cases, with characteristics specific to the general context of each; and that resources are probably being wasted in the same proportion.

I can now move on to some general considerations on the challenges of "Health for All" to be addressed in both Americas.

The Challenges of "Health for All"

The most important and complex of these challenges is probably the proper integration of health into the overall development process. Three dimensions of this challenge merit special attention:

a) The treatment of health as one of the most important basic needs of the population within a new theory and practice of development. This implies a need to determine the importance of the psychosocial attitudes and the psychobiological aptitudes of individuals - the workers - for productivity not only at the microeconomic level, but also particularly at the macroeconomic level; the satisfaction of basic needs as the primary factor in shaping those attitudes and aptitudes, and the construction of theories and development of the associated

methodologies for explicitly addressing those variables in the conduct and planning of development. Only then will social equity and the satisfaction of basic needs of the population cease to be objectives defined almost exclusively by value considerations, with the allocation of resources as marginal variables in economic equations.

b) The intersectoral approach to health. This dimension within the framework of health, as one of the most important of the basic needs of the population, would be truly well developed, and relations with other sectors better understood and accepted by all.

c) The political dimension of health. Decisions on levels of funding, the social groups and needs to be served, the organizational approaches and technologies to be adopted, as well as the development and use of resources - manpower included - are, in practical terms, the outcome of the manner in which real political power is distributed in society and of how the sociopolitical process operates, particularly in pluralist societies. Hence, the political challenge posed by "Health for All" must be faced with resolve and without fear, so as to generate the political will that will place that goal within reach.

Of particular urgency in developing America is the challenge of health coverage. Services need to be expanded so that basic care may be brought to at least the 130 million people who today are not properly covered and the 170 million who will be added to our population by the year 2000. That makes 300 million people to be provided for in addition to the 240 million being served today. And we must do this despite, and in the midst of, the economic crisis.

A thorough review and reorganization of our health service systems, under the approach, and with the strategy of, primary health care (PHC), must be conducted everywhere. This is not to say that PHC is to be adopted just as a program of activities or level of care, but rather that it must be used as a strategy for tranforming the entire health system, in the pursuit of equity, efficiency, social participation and the integration of health measures. We must also avoid the false conflict between primary care and the more complex levels of health care. We will have to revise our more complex levels in relation to PHC and steer them toward support of, and complementary with primary care, that has the capacity to solve the problems. The requisite revision will entail, on the one hand, a reduction of present levels of waste and the mobilization and actual use of potentially available resources. If we could cut current waste by just 50%, we would release resources greater than those being applied today in promotion and prevention measures and in so-called "primary care programs".

One of the chief sources of the present shortcomings of health services is technology: the process by which countries adopt and utilize technology in the organization, management and delivery of services. The kind of knowledge acquired and how it is used, lie at the root of all these problems. Another great challenge, therefore, is the management of knowledge, its conversion into technology and its practical application so that it will support the desired process of change. We must revise the present situation in which technology

reinforces existing distortions, as knowlege is frequently a means to the establishment of privileges.

The most important vector of knowledge and values in any social system is manpower, whose role in this capacity is of key importance, and especially so in the health field. How this manpower is trained and employed, is governed by the market and by working conditions, which are determined by current dominant practices, and has almost always had the effect of reinforcing existing situations.

Finally, "Health for All" cannot be realized without solidarity, because it is a responsibility not only of each of us, but of all of us joined together in a concerted effort. There must be solidarity in each national society - as the complement of social justice or equity and of real participation - and solidarity among countries. We are challenged to make use of health and of the social value it still enjoys, to promote understanding between social groups and betwen nations on behalf not only of health itself, but also of social justice, democracy, and peace.

These are some of the great challenges implied in the goal of "Health for All", and it is in relation to them, that the role of the universities should be considered.

The University and Society

I will first comment briefly on the overall role of the university in society.

The university as a whole is a reflection of society in motion, and at the same time, through the knowledge stored in it, a substantive expression of society and its "critical conscience": it is always questioning in search of new answers and paths. It is embedded in the social apparatus, of which it is a part, but it also needs the status of an independent observer exercising its own critical judgment. Its relationships in society are organic, comprehensive and complex, and become specific in each individual aspect or situation in the performance of its three basic functions, which are research, education, and services. As a critical conscience, the university must be innovative: it must anticipate and define needed changes, which in turn it must promote and commit itself to. As an expression of the whole, it must not harness itself to the interests of a few - of factions or groups - but attach itself to the higher interests of society as a whole. This ought to be true particularly of societies that are not yet consolidated, such as those of the developing countries. In these societies change is a greater necessity because the status quo is not socially or ethically acceptable. It must, and can do this, without ceasing to play its role as the guardian and disseminator of values that ensure the continuity and stability of society: change with continuity and stability in change.

In practice, however, the university has generally failed to balance these social roles. It has acted rather as a disseminator and perpetuator of values even when those values have hindered needed social change. The university has done so even in situations in which it has adopted a revolutionary rhetoric:

it has preached revolution but practiced conservatism. The contradiction is not as sharp in the developed societies, which are more stable, and have rules of social harmony more firmly established and more conducive to general welfare. In developing societies, however, this contradiction is a fact of life of disastrous consequences: socially undesirable situations are "legitimized," quite often through an appeal to extraneous values from abroad. The university is conservative when there is a need for change, and alienating when there is a need for a thorough understanding of the real social situation, so as to change it properly and peacefully.

The University and Health for All

The role that the university should play to attain the goal of "Health for All" requires, first of all, the creation of a university that is needed in society as a whole and a return to the idea and role of the university as a critical conscience and instrument for social change. A university can respond to the challenges of "Health for All":

a) by generating the knowledge needed for the integration of health into the development process and for a review of health practices, systems, and services;

b) by supporting the conversion of that knowledge into technologies and their proper use in the delivery of services;

c) by training the needed manpower and promoting its use and development in the structuring of health practices based on PHC. This includes the training of leaders who understand health as a social process and the strategies that are appropriate in each case for the attainment of "Health for All" - leaders that have the will to commit themselves to implementing these strategies; and

d) by committing itself to satisfying the needs of the population at large.

A university that is "necessary" to attain "Health for All" does not alienate itself from the society it serves and does not exclude problems which affect large segments of the population and which could be solved through rather simple measures. On the contrary, it gives them its unbiased attention and uses this experience as a yardstick for the attention which it gives to problems that are scientifically more complex and demanding. It is a university that joins in the life of its society and is receptive to the problems of the majority; it establishes relationships with health institutions and works with them while remaining free to criticize and to innovate for the sake of needed change. Its role is not confined to the higher spheres of instruction, but with education as a whole, determining the balance to be maintained between its levels, and giving firm support to basic and intermediate education. It is a university committed to the basic values of social harmony, of human beings and human life; a university that is not "ideologized," dogmatic, factious, and hence sterile.

A university like this can play the role I have referred to and become one of the most formidable and effective resources for the attainment of "Health for All," while serving as an instrument for cooperation, within and among countries. Indeed, the universities are very favourably placed to become a powerful vehicle for cooperation, in each country with the health institutions, and between countries on a bilateral and multilateral basis. Cooperation in the fields of research, including health services research; in the evaluation and development of technology; in manpower training and development; and in the organization, management, delivery and evaluation of health services. In each area and in each case, the specific forms that its participation and cooperation must take, need to be identified.

The "Health for All" university is the university that is necessary to society as a whole. Its participation is essential to the success we all seek.

THE ROLE OF CANADIAN UNIVERSITIES IN INTERNATIONAL HEALTH: THE VIEW FROM DEVELOPING COUNTRIES

Gloria Nikol, Senior Fellow, (Ghana), Lester Pearson Institute for International Development

The world profile for health to which our attention has been so vividly drawn by Mrs. Catley-Carlson and Dr. de Macedo is, unfortunately, illustrative of the profile for all areas of international development.

The annual average health expenditure per capita is $1,100 for Canada against $8 for Africa. In the United States it is more than $1,500. Canada's annual average per capita GNP is over $10,000 while that for Africa is $700; that for Latin American $1,675 and for Asia $310. A similar profile also exists for another marginal group in world development - namely women who, according to the United Nations, comprise 50% of the world's population and 1/3 of its workforce, but perform 2/3 of the world's work, earn 1/10 of the world's income and own 1/100 of the world's property. In Latin American, 80-90% of health care resources are allocated to secondary and higher levels of care, while about one third of the population has no regular access to primary health care. At the global level, more than 100 million people are malnourished with 700,000 deaths as a result of malnutrition while resources exist for eradicating this. The international development scene thus consists of centres of affluence and power and peripheries of poverty and deprivation both between and within countries.

The Dalhousie International Health Office and all concerned, are therefore to be congratulated for convening this conference to try to take a fresh look at the dimensions of international health problems and to "revise, redefine and re-orient" the way-ahead for Canadian universities in international development. Some progress has been achieved in which CIDA has played a commendable role, for example, in the area of mass immunization of children in countries like Colombia, and Burkina Faso. India, China and Nigeria all have massive plans for full coverage of their children within two or three years. This progress illustrates a number of important points in international development which Canadian universities might well ponder as they embark on this exercise of redefinition, re-orientation and renewal.

In the first place, progress in international development does not take place in a vacuum. Success depends primarily on the initiative and resolve of Third World governments in devising and implementing forward-looking and equitable policies in the areas concerned so that the supportive and supplementary role of donor agencies can bear fruit. What has to be borne in mind is that, if there is progress, it is not because massive resources have been brought into Third World countries from outside, it is because countries have marshalled their own resources well, thus making effective the supportive help of donor agencies. The bulk of the resources which Third World countries use for their development, is mobilised internally and foreign aid can be a supplement and in no way a substitute for these resources.

Another point to note is that the successes of CIDA in primary health care and of IDRC's innovative efforts, for instance, in the support of Third World research in the fields of agriculture, human resources and health, especially to improve health of mothers and children, are due, among other things, to the fact that these activities are responsive to the essential needs of the majority of the marginalised and the disadvantaged in these societies.

Thirdly, these efforts are succeeding because they are based on local initiative and local participation and not because Western health-care models are being transplanted lock-stock-and-barrel to the Third World countries concerned. The need for international development efforts to take acount of the local cultural milieu, of the attitudes, traditions and perceptions of the cultures of Third World countries cannot be over-emphasised. This is even more important in health programmes since good health is achieved by an individual through his own efforts and is not delivered on a platter. Special efforts need to be made to help strengthen local capabilities for self reliance and to help develop indigenous substitutes.

Fourthly, examples abound to success in international development, where an inter-disciplinary approach has been taken. River basin development schemes for example undertaken without a health component at the very beginning have led to the spread of diseases like bilharzia after the project. Urban renewal programmes, undertaken without full inter-disciplinary cooperation have led to further slums which have required use of scarce resources to put right.

Two words, therefore, need to be borne in mind in international development so far as the Third World is concerned. These are, "relevance" and "sustainability". If universities evolve mechanisms for assessing needs locally and developing local resources in accordance with local desires and objectives; if account is taken of the cultural milieu; if indigenous personnel are involved at every stage of the design and implementation of programmes, then programmes will have relevance and will endure. They will not fold up as soon as the foreign expert leaves. In short, there needs to be a certain responsiveness to the views, the local conditions and the participation of the other side of international development - namely the Third World - without which there can be no international development. This point is underscored by Dr. de Macedo when he talks about "shortcomings of the development models adopted in the (Latin American) Region and of the world economic system as a whole" which have exacerbated the problems of poverty and deprivation.

Other equally important issues have been raised by Dr. de Macedo. A basic conclusion to draw from his presentation is that although Third World countries may share a common bond in being poor and being at the periphery of the world economic system, there are differences among them which need to be taken into account in the design and implementation of international development programmes including them. For instance, Dr. de Macedo tells us that Latin American is highly urbanized and indeed 75% of its population will be living in cities by the year 2000. My own continent, Africa, however, although demonstrating an increasing urbanization rate, is the least urbanized continent

in the world with almost 73% of its population living in rural areas. Again, Latin America's population is a young but rapidly aging one, whereas Africa's population is young - almost 43% comprise young people under 15 years of age. Those over 65 years of age comprise 3.3% of the population. Women also comprise slightly over 50% of Africa's population. Naturally, therefore, there will be different thrusts to programmes in these two continents. African programmes, for instance, must emphasise agricultural and rural development, women's issues including women's health problems such as maternal malnutrition and nutritional anaemia, children's health programmes and programmes for young people generally. With Latin America, it would appear that more emphasis would need to be placed on the urban "informal" sector in poverty eradication programmes.

This diversity must underscore the need for centres of teaching and research devoted to Third World issues, and a whole package of measures aimed at making the Third World better know to Canadians; - centres which look at the Third World not as monolithic creations but as distinct entities sharing common problems; centres where problems of these areas will be authentically discussed as a basis for programmes, so that those who wish to make careers in international development do so in full knowledge of the diversity in culture, in levels of development, in history, in religion, in political development of this area of the world called the Third World.

Dr. de Macedo has raised basic and fundamental questions that should guide the design of health programmes for achieving "Health for All" and it is important to emphasise these. Among them:

- the proper integration of health into the overall development process with the satisfaction of basic needs of the population and social equity being allocated resources in mainstream economic planning and not as peripheral issues;

- the importance of training of the right kind related to problems and needs; - training that would lead to the reduction of social inequalities and not to the consolidation of distortion and privilege;

- the avoidance of waste. Indeed, Dr. de Macedo states that waste arising out of mismanagement and the use of inadequate technology and sciences amounts to more than 35% of existing resources, and that a reduction of such waste by just 50% would release resources far greater than those currently being spent on promotion and prevention in primary health care;

- inter-sectoral and inter-disciplinary approaches to health care;

- questions of equitable coverage. The need to expand basic services to cover populations not properly covered today as well as those to be added as a result of population increases, while maintaining coverage for those being covered today;

- questions relating to the review and re-organization of health service systems with a view to equity, efficiency, social participation and integration of health

measures. For instance, Dr. de Macedo draws our attention to the need to avoid the false conflict between primary care and the more complex levels of health care - facets of health care which should be looked at as complementary; and finally;

the political dimensions of health - in other words, decisions on what social groups are to be served, levels of funding, organizational approaches and technologies as well as development and use of resources (including manpower), are all very burning political issues which need to be faced with resolve and courage.

Indeed, these fundamental questions point to the need for the exercise of responsible choices in the light of dwindling resources for both national and international development.

What should be the role of the University in all this? Margaret Catley-Carlson emphasises the catalytic role of universities in evolving change and the organizational changes universities must make to be able to be effective instruments of change: viz. Universities must create organizational focal points for international development as integral parts of universities; they must provide multi-disciplinary expertise; they must develop diversified sources of funding and establish relevant and credible research agendas and impact studies. In Africa, for example, research into traditional medicine and health delivery systems with a view to improvement and integration into health systems, would be a most fruitful area of research since, for most Africans, this is all that is available.

Dr. de Macedo emphasises the social responsibilities of universities viz - a university he says, must be an expression of the "critical conscience" of society in all its three basic functions of research, education and services; it must be innovative and serve the higher interests of society as a whole and not a few factions or groups; being a part of that society it must be "needed" by the society as a whole; its role must not be confined to the higher spheres of instruction only, but with education as a whole - determining the proper balance to be given to different levels of education and giving firm support to basic and intermediate education.

In conclusion, the important role which universities can play in international development has been emphasised. As an African, I would like, however, to emphasise that before the role which Canadian Universities play in international development can be effective, they would have to be sure of their own role within Canadian society. How far are Canadian Universities being the "critical conscience" of Canadian society? How far are they being innovative in serving the interests of the larger mass of their society and not just a privileged few? What are their attitudes towards their own native populations, their black populations, their women and their foreign student community? I believe that it is from a renewed sense of their true role within their own society that Canadian universities can be effective instruments of change in international development - the kind of change that is relevant to the Third World and which can be sustained in a dynamic framework.

We must thank Margaret Catley-Carlson and Dr. de Macedo for focussing our attention on many of the critical and fundamental issues involved and giving us much to ponder and guide us in our discussions over the next few days.

ROLE OF CANADIAN UNIVERSITIES IN INTERNATIONAL HEALTH: PERSPECTIVES, ISSUES AND PROBLEMS - 'VIEW FROM DEVELOPING COUNTRIES'

George Joseph, (India), Coady Institute, St. Francis Xavier University, Nova Scotia

I am indeed happy to be with you this morning to respond to the presentations of Dr. Guerro de Macedo, and that of Mrs. Margaret Catley-Carlson on "The Role of Canadian Universities in International Health: Perpsectives, Issues and Problems". But my presence with you makes me feel uneasy. First and foremost I am aware that you are in a position of strength and power over our (Third World) lives. What is the nature and result of this power? Developed countries control a large portion of the worlds resources: natural, human and technological. As a result, you have the money to maintain a high standard of commercialized living and we in the Third World struggle to save thousands of our children dying from starvation and ill health. I am told that research institutions in this part of the world are provided with a lot of money to produce spare part hearts for sale to those who can afford it, while hundreds of our people live and die an inhuman life of misery. Moreover, current policies in the First World favour spending money in perfecting the Star-Wars system and sending more people to the moon. After coming to Canada, I am surprised to find the newspapers speaking of the ever present dangers of war while back home our concern is food to keep our people alive. There is a connection between the two though. Money and personnel in war research is money and skills wasted. If this money and resources were utilized for finding solutions to the problems of food, shelter and health care, we would already be living in a better world.

Thirty, to forty years of independence, yet the startling reality of poverty and ill health hits you in the eye in any Third World country. Poverty, ill health and suffering are not merely startling; they are growing. Accusing fingers are pointed at the apparent cultural backwardness, lack of incentive, population explosion, corruption and opportunism of the politicians and bureaucrats and even the evils of past colonial rule, to explain the prevailing situation. I do not want to get into a detailed discussion on any of the reasons, primarily since that is not the topic I have been invited to address. But what impression have you of us? I have come across Canadians who believe that charity begins at home; that the tax-payers money has to be used for their welfare. There are people who believe that we, in the Third World do not deserve to be helped because we are lazy, apathetic, coming your way with begging bowls and unwilling to help ourselves.

On the contrary, all Canadians do not share this view. I have also come across Canadians; a good many of them who treat us as human beings, worthy of God's creation though different in colour, background, culture and religion. That is indeed heart warming especially after reading about the arguments put forward in some of the Western press to prove that our lives are not as valuable - at least not financially. Back home, I stay and work with a Canadian who for

me is as much as an Indian as myself. People like him, and many others keep alive my faith in the universal brotherhood of man.

The greatest drawback in any Third World country even today is poverty - lack of food to eat - that compels the majority of its population to live sub-human lives manifested in the health area by TB, leprosy, marasmus, etc., which are truly diseases of poverty. The causes of this poverty are economic, social and political. This makes it imperative that we must be prepared to look upon poverty and inequalities, as the worst diseases of the social order. The striking evolution of health standards in the First World countries is ample proof; for basic progress in health standards in the West took place before the outstanding medical discoveries and can be attributed more to the overall betterment of nutrition and living conditions than to purely technical and health advances. Public health and preventive medicine also contributed to this progress.

Though I am a non-medical person, I believe that every human being has the right to life and health and to the basic necessities of life including proper medical services. If this belief is to become a reality, there should be an even distribution of health resources amongst the world population. Health services should be available to every individual and community in an acceptable and affordable way, and with their involvement. This goal is possible for we have the technology and resources to make it happen. The question we are confronted with then is: 'How should we use the available resources to provide basic health care to everyone' rather than, 'To how many people can we provide good health care?'. Proposals to bring this about throughout the world, fall into two categories. One approach assumes that the existing programmes are, on the whole, moving in the right direction and that what we need is marginal adjustments and changes, such as more research, more hospitals and dispensaries, more and better trained personnel, more drugs and above all more funds. I do not share this view. I do believe that several of the assumptions on which the present system is based, are wrong. For instance, there is no distinction between planning for health and planning for health services, little or no attention has been paid to the broad dimensions of health, and health is regarded as a government responsibility, and not as the responsibility of all persons concerned. The serious shortcomings of this model cannot be cured by small tinkering or well meant reforms. Any attempt to pump more funds into a costly and wasteful system of this type, complicate instead of solving our major health problems. Better training, better organization or better administration will also not yield satisfactory results. What is wrong with the present system is its basic principles and approaches to health care. I suggest that this model be given up and a new alternative model should be tried in its place.

What we need without further delay is integrated plans of health and development; reorientation of the existing priorities so that the bulk of the funds can be spent on programmes of nutrition, improvement of environment, protected water supply, immunization and education rather than on curative services; on basic community services at the bottom rather than on super-specialities at the top; on integration of promotive, preventive and curative

aspects which are community-based, people-oriented, economic and participatory. Nothing short of these changes will meet the immense challenges before the world and raise the health standards of the people to adequate level by the year 2000. The attainment of the above goals will very much depend on the extent to which it is possible to reduce poverty and inequalities, the extent to which it is possible to organize and educate the poor to fight for their rights, and the extent to which we can move away from the consumerist model of health care. These are our tasks and we need the support of as many people as we can to achieve this goal. Your collaboration in these ventures would be very welcome in any Third World country.

I realize that I am speaking to a group which is aware of the reality in the Third World and committed to changes. All the same, let me point out the differences between you and us in the Third World. I will be specific about my country here. I come from India, a country that is the largest exporter of doctors and nurses the world over. We have supplied over 26,000 doctors and an unaccounted number of nurses ever since independence. We surely need their services much more than the Western world but we never have been able to keep them back ourselves. The financial advantages of working abroad are so lucrative that almost anyone will try to get out of the country. Their presence in this part of the world and the concentration and even unemployment of doctors in your cities speaks volumes of the essentially urban orientation of medical education which relies heavily on curative methods and sophisticated diagnostic aids.

In spite of all the technological, industrial and agricultural progress India has made during the past 38 years, ours is a country that has to feed roughly 25 million new mouths every year; that is an additional Canada each year. I come from a country where the birth and death rate are 33.1 and 14.2 respectively; a country where the infant mortality rate is 127 and life expectancy just 55. Within India itself, there are wide health discrepancies between states, social classes and castes, sexes and between urban and rural areas. Communicable and preventable diseases constitute major health hazards. For instance acute diarrhoeal disease alone is believed to cause1.5 million deaths every year. Malaria has staged a comeback and so has cholera. TB is another problem that presently affects about 9 million people. India has 20 million mentally retarded people. Out of 9 million blind persons in the country, about 6 million could be cured by proper surgery and about 25,000 children become blind every year due to vitamin deficency. Indian children below 15 years of age numbered more than 265 million in 1983. Children under 5 who constitute less that 15% of the population account for one-third of all deaths in the country and half the infant deaths occur in the first month of life. An average of 60,000 women die every year in the course of child birth or shortly after. Protected water supply and sanitation is still a dream for most Indians. Four out of every ten rural households in the country do not consume a diet adequate in calorie requirements. The situation in essence is pathetic indeed! One is struck by th appalling poverty and ill health of the masses in any part of the country with only a few islands of prosperity.

For those of you who consider my presentation of the reality negative, let me point out that various reforms are being progressively introduced and committees are being set up to study the key issues. This is especially true since the 1970's. The planners openly admit that the approach so far has failed to have the desired impact. Present efforts aim at ensuring in all areas, a minimum uniform availability of public health facilities, which include preventive medicine, family planning, nutrition, detection of early morbidity and adequate arrangement for referring serious cases to an appropriate higher echelon. I believe that the emerging model of health care contains genuine possibilities for the rural and urban poor, provided these schemes are translated into outlays, actual expenditures and priorities.

For me then, one of the first things this group has to clarify is why help? Why do you want to reach out to the suffering millions in the Third World in spite of your own problems of unemployment and underemployment? Is it out of humanitarian grounds and is it going to be in the form of aid or working together because you feel committed to alleviate the suffering and misery that we are exposed to in the Third World? I believe that we have a responsibility for each other. I see the need to work together to build a better society in which to live. This responsibility arises out of our commitment; out of our belief that whether one is from the north or south - everyone has a right to live and work. So one of the first questions you should ask yourselves is whether your commitment comes from a sense of resonsibility. If it is one of responsibility, we are speaking of cooperation and also of commitment to communities and groups in the Third World. We in the Third World have to solve our own problems and the only thing you can do is to help us to help ourselves. If universities in the First World have to be involved in such a process, it should be an educative process involving students, the administration and the staff. First, this would require the creation of awareness among staff and students of universities on the living realities in the Third World. In no way should such an experience be one-sided. Universities in the Third World should also have an opportunity to know more about life in this part of the world.

I suggest that helping the Third World is not only a humanitarian thing to do but it is an essential thing to do. Any help to begin with should be to help your counter-parts in the Third World undertake cooperative ventures and development linkages. in others words this means sharing of resources - personnel and finances. Certain experiences of developed countries can help developing countries to tackle some of their health problems and avoid disastrous mistakes. Let me single out a few key areas. As industrialization steadily gains ground in Third World nations, their disease patterns and environment problems will almost inevitably become more similar to those of the rich nations. The public health and social welfare measures and experiences in the line of socialization of medicine, are well worth taking into account.

Universities can also help their counter-parts to build up models through which basic needs can be met at minimum cost. Through these experiences and experiments, various ideas can be tested and certain possibilities highlighted. Such models can, in course of time, play a pioneering role and

help to establish a critique of the existing system and to evolve new approaches and strategies. Such models would not only offer better health facilities to the covered population but also provide us with the experience of how an alternative health care delivery system can be designed and operated. Such projects could easily challenge the conventional notions of health care, explore the possibility of alternate doctor-patient relationships, demonstrate the value of preventive and social medicine over expensive hospital-based curative techniques. In this way they become constant reminders of what in fact is possible, even within the existing structures, and show what could be done on a large-scale with proper political will and thence build up pressures for meaningful changes.

It is also possible for universities to assist communities and groups in the Third World to undertake programmes at the community level through their own initiative to solve their problems in their own way. Each university can adopt a particular community and provide resources for the same. This is a good w;ay to work together with communities in their attempt to solve their basic needs. Sharing science and technology which is now heavily concentrated in the First World and which has an enormous contribution to make towards conquering world poverty and ill health, encouraging and supporting exchange and experience programmes, are all possible. But a prerequisite is that university students here, be provided factual information concerning Third World countries and an understanding of global needs and responsibilities.

The potential of community health care projects to raise health standards, is generally accepted. Such programmes can also also contribute towards the promotion of human development in the community; its consciousness, organizational capacities, and self-reliance. Supporting such programmes are also possible. Another area where universities can help is in designing curricula for the training of local level health workers and in evaluating and monitoring on-going programmes. Undertaking study/research of traditional healing practices of ancient civilizations and cultures is yet another possibility that could be considered by various university departments.

Let me spend a few minutes sharing with you some of our disappointments and frustrations. It is saddening to note that even after Alma Ata, the approach used for health care is heavily institutionalized. I believe that the First World countries spend most of the money and resources, set aside for international cooperation, on wrong priorities. There is not enough collaboration with non-governmental organizations and action groups. These are groups that have to be supported and encouraged. Their small size, operation in restricted areas, flexible organizational set-up, presence of local cadré and committed personnel in their ranks, help them to have deeper contacts with the people than government officials and bureaucrats, thus obtaining better results. The formalities to be followed for collaboration right now are so complex, that organizations have to set aside one of their personnel for writing projects and doing follow-up work. Besides, one realizes that the type of aid offered has strings attached.

Then there is the whole question of understanding one's counterparts in the Third World. It is not rare to find people of the First World failing to understand and appreciate our culture and life-style which is so different from yours. You might be shocked if I tell you that even with all my education and urban upbringing, I might still have an arranged marriage. I find it perfectly normal. Remember, the late Mrs. Indira Gandhi lost her election in 1977 mainly because she was too forceful in advocating family planning. Any sort of collaboration therefore should begin with an understanding of our deep-rooted culture. Putting us into little boxes and describing us as lazy, apathetic and ignorant will not help either.

It becomes clear to me then that there is no single solution for the problems of ill health confronting us and there are very many ways to collaborate with us. Our major health needs consist of providing the masses with elementary medical services, eradication of infectious and preventable diseases, immediate and continuous supply of clean water for daily use, maternal and child health, provision of essential drugs and health education. There is also the need for research to identify major health problems and to document realities; need for developing indigenous training of grass-roots workers and need for tackling broader development issues. We need a lot of committed personnel to carry out work among the rural and urban under-privileged masses. Our wish then is that universities in the First World become aware of our plight in the Third World. We also wish that this awareness can lead to collaboration for action to build a better society in which to live.

HEALTH FOR ALL AND THE ROLE OF CANADIAN UNIVERSITIES IN INTERNATIONAL HEALTH: PERSPECTIVES, ISSUES, PROBLEMS

Robin Roberts, M.D., (Bahamas)

Ladies and gentlemen, thank you for giving me this opportunity to address this distinguished group of health care professionals. Both speakers addressed the socio-economic aspects of health care delivery. I have attempted to synthesize replies to them both from my own perspective.

Health care delivery in any country is considered an essential service, so the Government must establish health care policies. These policies are guided by one of four underlying philosophies. Does the government adopt a position to provide: 1. The maximum health for the maximum people, 2. The optimal health for the optimal people, 3. The optimal health for the maximum people, 4. The optimal health for all the people.

Whatever philosophies are adopted, health care is expensive, someone has to pay; whether it is the government, private insurance companies, or the patient. It is expensive because health care requires: 1. health care personnnel that have to be trained and paid to deliver that care, 2. institutions, ie: hospitals (tertiary care), clinics, and vehicles, offices, etc. for the primary and secondary health care services, 3. equipment for diagnosis and treatment, 4. medicines, 5. infrastructure and superstructural organizations to organize and coordinate the care, ie: management.

In the underdeveloped countries, cost is an obvious major constraining factor in health care delivery. It is highlighted by comparing the annual Government health figures of $1,1000.00 per annum per Canadian, versus $8.00 per annum per African. In the underdeveloped countries, the Government has no choice but to attempt to provided the maximum health for the maximum people. You cannot think about a hemodialysis Unit for renal failure, if you can't provide enough food to feed the people, or clean water, or standard triple vaccines.

I managed a patient in the Bahamas with extensive burns, who despite responding well to treatment with a favourable outlook, wanted to know if his chances would be better if he went to Miami. Of course, I had to say yes, considering his need for a Special Burns Unit, special trained doctors and nurses in burn care management, laminar-flow rooms, etc. So after paying $2,000.00 for his half hour plane ride in an Air Ambulance, $100.00 for a ground Ambulance and $7,000.00 a week for his hospital stay, he was able to experience the optimal care for the optimal people. If he did not have the $7,000.00 advance payment, he would never have been allowed to enter the doors of that hospital. But we know full well that there are over 30 million people in the United States, who despite the availability of optimal health care, cannot even afford to have the minimal health care.

When I came to Canada, I was impressed that if anyone came off the street at three o'clock in the morning, and needed a top specialist in any field, he would be seen that night. The universality of health care delivery is obvious. The question of being able to pay, never enters into his management. He will get the same standard of care as if he were the Prime Minister. But, obviously, if he were in the Northwest Territories, he would have to settle for a Nurse Practitioner rather than the specialist, so in Canada we try to provide optimal health care for the maximum people. The recent cutbacks in health by Government, obviously reflects how expensive it is to sustain such a high standard of care.

The optimal health for all of the people is Utopian, but it gives us something to reach for. The optimal health must be defined by those international organizations such as W.H.O. or P.A.H.O. as well as setting the standards for delivery of that optimal health care. These standards will vary from country to country and must incorporate the complex cultural background as well as consider the national income of that country. There are no easy answers and there is no ideal system that would fit all the countries. We have to be careful in suggesting that money is the cure for all, or education is the cure for all, in looking at these complex health problems. The problem of sexually transmitted disease is a classical example if you consider that in a simple condition such as gonorrhea, there have been few diseases where there has been so much excellent research, definitive drugs for treatment or health education in terms of mass media and local person to person education, plus VD Clinics and VD Specialists. But, despite all these advances, every year we still have more and more disease. My former teacher coined the phrase, "the paradoxical pathology of the absurd". One must thus realize that the attitudes of the individual is also a serious consideration when distributing health care and this must be reflected in whatever standards of health we hope to obtain.

In the second part of their talk, the speakers attempted to see where the Universities fit into contributing to this complex state of world health. To optimize the efforts, it is important to classify the nations of the world into fourth world, Third World and Developed Countries. In addition, I want to add another group which I have labelled as the "Two-and-a-Half World" developed countries. This classification emphasizes the needs of these countries, and thus direct our efforts to the problem areas.

In the Fourth World countries, we are still at the stage of establishing basic health priorities, sanitation, immunization, preventive medicine, nutrition, population control, etc. Unfortunately, these are countries where government ideologies are in conflict with the developed countries. These are mostly military governments and their economic priorities reflect their military status. Ethiopia is a classic example. Organizations such as CIDA, IDRC, etc. are doing a great job. The universities are more effective working through these institutions contributing to teaching, research, etc. as outlined by Mrs. Catley-Carlson. The university can also provide a direct service via a team of doctors, nurses and other health professionals working directly in the community. An eye specialist team, for example, offering their services and providing glasses and giving sight

to patients who never would have seen an opthalmologist in their life time. The underlying fact is that these countries have to be given assistance in order to survive and in order to build to the level of providing for themselves.

The Third World countries also have their Fourth World rural areas, but the difference is that they have the resources to establish a medical school and nursing schools, ie: to train their own in their own setting. I feel that this is where the Canadian universities can really contribute their expertise directly by:

1. Visiting lecturers,

2. Visiting health professionals that can share new techniques and new developments in health care, and their own experience,

3. Student exchange programs,

4. Integrated research,

5. Workshops,

6. Joint conferences such as satellite transmission and video conferences.

The local university is the source of knowledge, and they can direct the Canadian universities to the local problem areas and bypass the local politicians and bureaucracy. The Caribbean Research Council at the University of the West Indies in Jamaica is an excellent example of cooperation between foreign medical schools and a local university. They were able to identify various toxicities of local foods, and define the nutritional values of local foods, and thus establish a standard nutritional diet for local consumption.

Finally, I want to mention the countries I call the Two and a Half developed, because their problems are different, for example, Barbados, Bermuda and Bahamas. I feel that the standards of delivery of health care is equivalent to that of North America. There is full immunization for all children. Malnutrition is of historical interest. There are well developed tertiary care centers and polyclinics for primary and secondary care as well as an organized public health system. I will probably be the first trained urological surgeon in my country, in which the need is estimated at one urological surgeon for 200,000 people compared to what would be considered optimal in North America of one per 1,500. Since my arrival three years ago, the university doors to post-graduate medical training have been closed to foreign students unless paid by their own governments, that is, if they do accept to train us in the first place. The differential university fee hurts. There are no veterinarian schools in the Caribbean, but I know of an individual from Jamaica who is sponsored by his government to study veterinary medicine in Canada. He has been informed that his $1,000.00 tuition fee will now be increased to over $4,000.00 in the beginning of the year. That is a tremendous increase for the Jamaican government, considering that you need about five or six Jamaican dollars to each Canadian dollar. Another example is that of nursing students. One of our

well trained nurses in the Bahamas who wished to do a degree program in Canada in order to assume an active part in nursing training at home, has to pay over $3,000.00 in tuition fees versus $1,000.00 for the Canadian. These Two and a Half world countries I feel are optimal for us to be able to apply the old Chinese saying of "Give a hungry man a fish and you feed him for a day. Teach him how to fish and you feed him for life". These are the countries where, with a handful of well trained professionals, they can be self sufficient in providing a high standard of care for their local population. These countries need that special consideration for training in Canada, but with the barriers established, it seems as if they are being penalized for being poor. It is a sad state when you consider that the percentage of non-resident students is less than one percent. We need the help of the universities to train laboratory technicians, our managers and our specialists. It is in these countries where I feel the universities can be most helpful, but the quota system and differential fees are very negative and they really hurt.

I consider the university as a computer of knowledge. They are memory banks for data retrieval from a body of intelligent minds. They have the ability to create programs and provide the management skills to implement and direct these programs, and make future projections. They can also teach and train. I hope the universities never lose that commitment, so they can be at the front line of the global health revolution in establishing Health for All.

THE ROLE OF THE UNIVERSITY IN INTERNATIONAL HEALTH

Ralph Campbell, Association of Universities and Colleges of Canada

It was just about one year ago now that Dr. Mel Kerr of the Faculty of Medicine in the University of Calgary approached IDO for support and participation in a small workshop to be held in Banff at the end of May 1985. The thirty of so participants in the Banff workshop were primarily drawn from Medicine and the scope of the workshop was somewhat confined for that reason, although those present regard it as a remarkable success.

Because of the excellence of the Banff workshop, when Dr. David Shires of Dalhousie University approached IDO to provide support for a broader ranging conference to be held in November we agreed at once to provide some limited financial assistance. We are pleased that we did so because this workshop gives every evidence of moving international health in Canada forward a great deal.

Among the various kinds of assistance made available to the Third World by Canada and Canadians, a substantial amount is in the form of support for projects designed to impove the health of less privileged people. While recognizing that the classification of projects by major sector is a somewhat subjective exercise, it appears that at least $100 million of CIDA and IDRC annual expenditures can be legitimately identified as health projects. Among all Canadian university projects in the Third World, approximately 20% of the funding is for health projects. "International health", which usually means "health in the Third World" has long been a favourite of Canadian and international non-governmental organizations.

In the minds of some there has been a tendency to identify "health" as virtually synonymous with "medicine" as in "Faculty of Medicine". No one should dispute the important and central role played by medical doctors and medical researchers in understanding and improving health, but such a narrow view of international health has led to misconceptions as to the form and magnitude of the total effort required to bring about improvement. The professionals and quasi-professionals of nursing, pharmacy, nutrition, dentistry, and physio- and occupational therapy have a place on many international health teams with their colleagues in medicine. The work of demographers, family planners and urban planners is closely related to that of the core members of the team. Then one should add the civil engineers and water engineers who improve water supplies and dispose of wastes and the entomologists who tell us how to cope with insects and thus insect-borne diseases such as malaria, river blindness and sleeping sickness. It is hard to know where to stop. Two things are clear though: first, international health embraces a great array of disciplines, and second, members of those disciplines must have some familiarity with and appreciation of, the potential and on-going work of members of other disciplines.

Thus, the first point I wish to make is that we are talking of a wide spectrum of disciplines; the second is that we should stress preventive as opposed to curative activities; and the third point is that we are not talking of producing clones of ourselves no matter how good we may be.

An indicated above, Canadian universities have participated in a substantial number of health projects in the Third World. A listing[1] of CIDA-supported projects involving Canadian universities is appended; even a casual reading of the list should impress one with the diversity of projects and locations in the Third World.

Impressive though the list may be, there could be many more productive projects were it not for substantial constraints which militate against expanded involvement by Canadian universities and university personnel. I turn now to a discussion of some of these constraints.

Finance

One must start with the financial constraint experienced by universities and aid agencies, not just for health projects but for all projects. At this very time, the ICDS Division of CIDA has 128 proposals for linkages the aggregate requirements of which exceed by at least six times the amount of funds available to ICDS to finance them. ICDS has requested IDO to create a panel to rank these projects on the basis of specified criteria and the panel will produce its recommended ranking this month (in fact they met for at least three days early this week for this purpose).

It is one of the ironies of aid programs that when individuals, universities, and associations such as AUCC/IDO have generated interest and enthusiasm for projects in the Third World, the funding available for them becomes inadequate and many sound proposals are stillborn. The chairman of the panel ranking the ICDS projects has reported to us his judgment that almost all of the proposals are of extremely high order and involve university personnel with the kind of quality and experience which would make for success. It is indeed discouraging for dedicated competent professors and administrators to build up both proposals and enthusiasm only to be met with the statement, "Sorry, but there are no funds". Sympathetic understanding by colleagues in CIDA goes only so far in such situations.

One possible alternative is to try other sources of funding. About 9 months ago IDO produced a practical how-to-do-it publication called Guide to the World Bank to help Canadian universities and colleges approach the Bank in a way that has some prospect of success. The Bank, as you know, makes US $15 billion per year available in loans and credits. The author of the Guide, an occasional employee of IDO and a former employee of the Bank, reviews announcements of Bank projects, checks with Bank personnel as to the stage of the projects and who is responsible for them in the Bank, and so informs

[1] List prepared by Nancy Gerein, then of CIDA, for a conference in Banff in May, 1985.

Canadian universities. If even one additional project by a Canadian university is the result, our effort will have been worthwhile.

Another alternative is with the Economic Development Institute, the EDI. CIDA has provided $1,000,000 over three years to EDI to be spent for Canadian personnel producing case studies and material related to training, and participating in training courses for senior and intermediate level officials from the Third World. We have sent about 100 C.V.s of Canadians to EDI for consideration.

Given that the Bank makes loans and credits of US $15 billion per year, Canadian universities should not feel that the only source of financing is CIDA or IDRC. There are, of course, many other international agencies, banks, and funds such as the Inter-American Development Bank.

Inadequate communication

At a remarkably well-attended and successful conference sponsored by IDRC and the University of Waterloo in 1984, the workshop dealing with international health concluded that one of the most serious, if not the most serious, problem was that Canadians with an interest and (often) a personal involvement in international health, were isolated because there were inadequate channels of communication among them. Even specialists in the same discipline were unaware of work by their colleagues. The report of this workshop starts with the following comments under the heading, Areas of Common Concern.

> "Workshop participants represented a broad range of biological and health sciences disciplines ranging from microbiology through clinical and epidemiology research. They identified several factors that currently limited the contribution of Canadian expertise in these fields to research and technical consultation aimed at the health problems of less developed countries (LDC's):
>
> A lack of communication regarding current and planned research projects and sources of expertise among the following institutions and agencies: universities, research institutions, governmental and related but independent bodies (CIDA/IDRC), NGO's and private sector consultants - here and abroad.

In a workshop in Banff in May, 1985, attended by very senior people in medicine and international health the same problem was cited - the lack of communication among international health workers in Canada.

A second and related problem in almost all Canadian institutions is the apparent lack of "critical mass" in international health fields. When only one or two people are working on international health in a department or agency they find themselves isolated among colleagues who are more in the mainstream of research and instruction related to Canadian conditions and problems.

I am pleased to say that a number of peole including Dr. Joe Losos, President-elect of the Canadian Society for Tropical Medicine and International Health, Dr. Richard Wilson of IDRC, and members of CIDA have been sufficiently concerned about the problem of communication among international health personnel in Canada that we have met with them to discuss the possibility of producing a regular newsletter or journal to try to keep Canadians aware of the efforts and developments in international health which might be of concern and stimulation to them. We hope to carry on with these discussions but would be pleased to know of any initial reactions by this audience to this question of communication.

Orientation toward health problems of industrial nations

Heavy concentration on health problems of the industrial world results not only in less research and experience on tropical health problems but in less academic "pay off" for a professional who goes abroad to work on such problems and then returns to his faculty having become something of an authority in a field which receives little interest or support from colleagues and research councils. Furthermore, persons working in a Third World hospital or community do not have an opportunity to supervise graduate students nor the infrastructure to conduct sophisticated research - both of which are important considerations in tenure, promotion and salary decisions in their home universities. If often takes a great deal of devotion and even sacrifice on the part of Canadian university people to press on with careers oriented to international health.

Third World students at Canadian universities

For an usually "internationalist" country, depending heavily on trade in goods and services, and on exchange of "know how", Canada has been remarkably parochial and self-denying in regard to its treatment of visa students. Seven of our ten provinces have set differential fees ranging as high as 10 times the level of fees for citizens. MRC, NSERC, and the National Health Research Development Program have limited the availability of research funding for visa graduate students. They cannot take employment in Canada other than as teaching assistants and research assistants; this is probably as important an obstacle to graduate students coming to Canada as any other single constraint, because it limits their opportunities for hands-on experience and for direct contact with members of the work force. In addition, it now seems that there will be further charges levied on all visa students to the extent that a charge of $50.00 may be applied for every transaction relating to a visa, an extension, or similar matters. These and other discouragements have contributed to a decline in the number of visa students at Canadian universities from 35,000 in 1983-4 to 30,000 in 1984-5, and a further decline of 15-20% in 1985-6. It is hard to understand why a country which has been so heavily dependent on foreign universities for the education of its own young people until very recently, which has so much to gain from international goodwill and understanding, and which in most things is generous to those less well off, has discouraged students from abroad.

The universities themselves have not been perfect, but they deserve credit for welcoming foreign students, appointing international student counsellors, and supporting English/French as second language courses. Last week, in a one and one-half day workshop organized by IDO at the request of IDRC and Graduate Deans and preceding the annual meeting of CAGS (the Deans of Graduates Studies) at Memorial University, the entire program was devoted to an examination as to how graduate students from the Third World could be offered programs which are more relevant to their home countries. The following are a few of the topics discussed:

- Problems with the Official Languages of Canada

    a) Problems with English
    b) Problems with French

- Making Programmes for Third World Graduate Students Relevant to Their Home Countries

    a) The Humanities, Social Sciences and Education
    b) The Health Sciences
    c) Agriculture and Rural Development
    d) Engineering and Applied Science

- A University Financial Officer's View Concerning Third World Graduate Students

- Perspective and Review

IDO has also been discussing with IDRC and with two universities the need for some management orientation and training often as a short supplement to academic programs prior to the return of the graduate student to his home country. There is much to be said for such an approach because frequently, graduate students who are trained in research are plunged, upon return to their home country, into a management setting.

Conclusion

Participation in International Health has much to commend it:

In the Third World	- improvement in the welfare of human beings - alleviation of suffering
On campus	- co-operation of faculties and departments - broadening of horizons
In the local community	- universities are seen as leaders, not as ivory towers

In writing this brief paper, the one thing which struck me was that, in spite of many adverse circumstances, the universities of Canada have made a fine beginning toward a major contribution to improved international health. More financial support would help, better communication is a "must", encouragement to Third World students has been good but could always be improved but the exciting thing is that Canadian universities and university people are concerned to do more and do it better. Workshops such as this should help in this respect.

APPENDIX ONE

HEALTH PROJECTS UNDERTAKEN BY CANADIAN UNIVERSITIES AND COLLEGES IN THE THIRD WORLD

Can. University	Oversea Link	Dates of Linkage	Funding Agency	Nature of Linkage
Memorial	Makerere University Uganda	1982-87	CIDA (ICDS)	Assistance to Department of Paediatrics and Child Health.
U. de Moncton	Nicaragua	1981-85	CIDA (ICDS)	Nutrition interventions including policy development, training and programming.
Mt. St. Vincent	University of Malawi	1983-86	CIDA (ICDS)	Assistance to department of Home Economics, nutrition.
Dalhousie	King George Medical College, Lucknow, India	1984-88	CIDA (ICDS)	Training of community health workers.
Sherbrooke	Zaire	1984-87	CIDA (ICDS)	Rural Health Programme.
	Morocco	1984-86	CIDA (ICDS)	Orthopedic training.
Laval	Comores Islands	1978-	CIDA (Bilateral)	Establishing a public health infrastructure; training of personnel at Laval.
	Sénégal	1980-	UNFPA	Family health project; fellowship training at Laval.
	Multi-country	1984	CIDA (ICDS)	Training of occupational health workers in Quebec.
Montreal	Sousse Faculty of Medicine, Tunisia	1977-82	CIDA (Bilateral)	Establishing a Department of Community Medicine; residency training of Sousse graduates at Montreal.
		1982-86	CIDA (ICDS)	
McGill	*University of Nairobi	1968-78	CIDA (Bilateral)	Staffing of Departments of Paediatrics and Internal Medicine.
	University of Addis Ababa	1982-	CIDA (ICDS)	Staff assistance to department of medicine; training of staff in Montreal.
Queen's	*Dominican Republic	1979	CIDA (Bilateral and NGO)	Provision of laboratory support to government's pathology services.

APPENDIX ONE (cont)

Can. University	Oversea Link	Dates of Linkage	Funding Agency	Nature of Linkage
McMaster	*University of Sierra Leone	1977-80	CIDA (Bilateral and WUSC)	Establishing a Department of Community Health and planning a Paramedical Training Centre; training of Sierra Leone health professionals in epidemiology at McMaster.
	Aga Khan University, Karachi	1981-88	CIDA (ICDS)	Training of nurses for School of Nursing, University Hospital and community health services.
	CAREC	1985-88	CIDA (Bilateral)	Caribbean Epidemiology Centre - assistance with rubella immunization program (in planning stage).
Western Ontario	Regional - University of West Indies, Ministries of Health	1983-87		Development of School of Physical Therapy and continuing education for practitioners.
Simon Fraser	Cook Island	1984-85	CIDA (ICDS)	Preparation of public health legislation.
Manitoba	University of Nairobi	1978-86	CIDA (ICDS)	Research and training in STDS.
	Ethiopian Nutrition Institute	1984-87	CIDA (ICDS)	Support for nutrition program delivery and evaluation.
Saskatchewan	Somali National University	1982-	CIDA (ICDS)	Training of medical fellows in Saskatoon; assisting development of graduate programmes at SNU.
Calgary	Tribhuvan University, Nepal	1982-	CIDA (ICDS)	Assistance in establishing medical school in Kathmandu; training programme in Calgary and Nepal for District Medical Officers.
	Sun Day Care Centre-Gaza	1984-87	CIDA (ICDS)	Rehabilitation education - curriculum and staff training.
U. of Alberta	Caribbean Region	1985-86	CIDA (ICDS)	Teaching assistance in pharmacy to College of Arts and Science, Jamaica.

APPENDIX ONE (cont)

Can. University	Oversea Link	Dates of Linkage	Funding Agency	Nature of Linkage
Colleges				
ACCC	Morocco	1984-86	CIDA (ICDS)	Sanitation Education.
	Niger	1983-85	CIDA (ICDS)	Laboratory technician training; training of professors in Canada.
Institut Armand Frappier	Togo	1982-86	CIDA (ICDS)	Expanded measles vaccination program; diagnostic laboratory for viral infection; portable solar energy refrigerator.
Hospitals				
Hôpital St. Justine	Hôpital E.A. Royer, Sénégal	1984-87	CIDA (ICDS)	Upgrading of hospital, nursing and medical administration.
Ottawa Civic Hospital	China	1983-85	CIDA (ICDS)	Exchange of staff in orthopaedic surgery.

Legend:
CIDA - Canadian International Development Agency
ICDS - Institutional Cooperation and Development Services Division
UNFPA - United Nations Fund for Population Activities
WUSC - World University Service of Canada

Dates may not be exact in all cases.

*Prepared by Nancy Gerein, CIDA, for conference in Banff, Alberta, May, 1985.

APPENDIX ONE (cont)

CHINA - CANADA HEALTH PROJECTS

Can. University	Chinese Institution	Dates	Funds From	Nature of Linkage
Toronto	Sichuan Medical College	1983-88	B	Medical Training.
	First Teaching Hospital, Beijing	1984-85	B	Use of Computers in Radio Therapy.
Toronto General Hospital	Capital Hospital Beijing	1983-87	I	Medical Exchange.
Toronto Hospital for Sick Children	Min. of Health	1983-85	I	Pediatric Exchange.
Dalhousie	Chinese Medical Informatics Assoc.	1983-84	B I	Health Informatics.
McGill	Nankai University	1983-90	I	Collaboration in biotechnology.
Ottawa	Welfare Inst. for the Handicapped	1984-85	B	
	Capital Hosiptal Beijing	1983-84	B	Cooperative medical programs.
McMaster	Min. of Health	1983-84	B	Clinical and experimental virology.
Cdn. Public Health Assoc.		1983-84	I	Medichen Conference
Clinical Research Clinicians of Montreal	Chinese Academy of Medical Science	1983-89	I	Training of biomedical health personnel.
WUSC	MFERT	1983-89	B	Human Development Training Program (includes medical training).

B - Bilateral
I - ICDS

COLLABORATIVE HEALTH RESEARCH WITH DEVELOPING COUNTRIES

Dr. Richard Wilson, Director, Health Science Division, IDRC

Is there a need for research? I do not think there is any doubt about that at all. There is a need for research especially health research in developing countries because the needs are so enormous, and the problems are so great and above all the resources for health as your heard are so limited. What are really the health related problems in developing countries and what are the research opportunities? What research opportunities exist today to find some solutions to these health problems, and what can Canadians and in particular Canadian universities, do about this?

I do not like to generalize, but yesterday, I think the plenary speakers took the liberty to generalize, so I will follow suit. I will also give you more or less a cook book as seen from my perspective on how to participate and what to do in health research in the Canadian perspective. To create this perspective I have shown you a film entitled "Prescription for Health". It was designed to teach sanitarians in the field about health hazards dealing with water and sanitation.

The film was sponsored by IDRC and developed in relationship to the Water and Sanitation Decade of the United Nations. It was presented by the Canadian Red Cross to an international film festival and won the gold medal for the best film of all international submissions on primary health care from twenty-seven participating countries. The film has become so popular it is now available in French, English, and also in l3 languages of developing countries. It is shown to villagers and is incredibly successful at the village level to get the message across about the value of simple pragmatic public health, this film demonstrates the problem which is abject poverty.

The film you have just seen shows some of the researchable areas on the ground floor, right in the villages, these are simple things, and they are pragmatic things. Now, if you ask the developing countries what research should we do?, they will ask you to strengthen their capacities to do their own research. Therefore, the first priority they want is to be able to do their own research and to improve their capabilities for research.

Secondly, and I am generalizing but this is pretty well across the board they want to do research which will find ways to optimize and get the best out of their very limited resources. Research that can show how to create intervention at the village level, which will improve the lives of the people, their social, physical and economic well-being. They are very interested in finding ways of how to allocate resources more effectively.

Thirdly, they want social sciences and epidemiological research. How do you get a message across? How do you change community behaviour? This is an extremely important part of the research that has to be done. These methodologies for this kind of research are incredibly difficult because the

minute you touch one area you disturb the delicate balance within these villages. How can you transfer a methodology which you have used in one country and one village to others all of which are very different?

Fourthly, they want to develop appropriate health technologies. One excellent example of appropriate technology research is the hand pump. IDRC, with the University of Waterloo and the University of Malaysia, have developed a hand pump which has become very popular and is manufactured locally. At the other end of the spectrum there is now under development, a series of malaria vaccines. The World Health Assembly has been talking about malaria vaccines for 50 years and in the year 2025 we will still be talking about the malaria vaccines. But, there are at least a dozen different malaria vaccines getting ready for first stage clinical trials in man and these are using the highest technology possible now, DNA technology, and biotechnology, to develop a more appropriate simple technology for the village level.

The fifth area concerns Canadian universities involvement in health research in developing countries. What about Canadian universities? What are the pluses for Canadian universities? The pluses are many, Canadian universities are generous, we are open, we are non-political, we have enormous credibility, and we are looked upon as objective people. Finally and very important, we are bilingual, we speak French. We are probably the only ex-colonial sovereign state in the world that speaks French. We have a real responsibility to work with francophone developing countries.

Our universities also have international status in many areas: agriculture, engineering, systems analysis or operations research and health education, these are but a few. We have faculty enthusiasm, you are here which is very exciting to me, the faculties are enthusiastic and they want to participate. We have human resources, but the human resources are limited, therefore we need to look towards working together and networking.

We have some institutional committment, I say some; I am not saying that the institutions are fully committed. I do not think they can be because our institutions are funded provincially. Two constraints mentioned by Ralph Campbell are financing and how to get the provinces interested in international issues. We lack sufficient funding for health research. All of us must work to make the priority of health research higher in the eyes of the decision makers, to allocate more funding resources for health research. In this country relative to the Scandinavian countries for instance, there is very little money available for health research.

What are the opportunities for Canadian Universities in collaborative research?

Yesterday, someone asked me what were the rules to get IDRC money. We do not have rules, but, there are ground rules to do collaborative research; some of these were mentioned by Mrs. Nikoi. The research done must be relevant and the outputs of the research must be applicable over a longer time, i.e. the outputs must be sustainable. Most important, the developing countries

and their researchers are the ones who decide upon the priorities, the problems and opportunities for research; we do not, but, we can be partners in working with them. However, in any partnership, and these are real partnerships, "their problems become your problem but they are the senior partners."

Finally if you have solicited funds from a third party, such a source may well have its own mandate, it's own priorities and it's own rules, and you will have to live within those rules.

I have made up the following subjective list which developing countries seem to indicate, or actually indicate, as real opportunities for collaborative research. The first opportunity is in institution strengthening and training. This is long-term, ten to fifteen years. We have the resources to do this, to strengthen institutions and to train the faculty, but it must be done in the way they want to be strengthened and the way they want to be trained, not the way we think they ought to be strengthened. IDRC is trying to alter its policy in such a way that we can endeavour to start some of these types of initiatives in the longer term.

The second opportunity is to do research in health services or health care planning, evaluation, and resource management. We have the talent in that, we have the methodology.

The third opportunity is in the dynamics of rural and peri-urban social systems, the communities. This is social science research as you saw in the film, how to get change into the community. If we want to make a change we have to study the dynamics of the community, how the community perceives disease, or illness and how it reacts to these.

The fourth opportunity lies in doing research on what the present health care systems are, and I am not talking about traditional healers only. There are a dozen types of health services in rural and peri-urban communities, we need to study them and learn how they are utilized and how they can be changed to improve the social and physical well being of the inhabitants. The role of these care systems, the role of women, the role of health education, and also modern epidemiology, all need further study.

Fifthly, the develoment of appropriate technologies offer us some challenging opportunities from a village handpump or latrine to the most sophisticated vaccine, if it is appropriate. We have the engineering faculties and health sciences faculties here in Canada to meet these challenges.

Finally we need research on how the developing countries can organize their research capabilities, their educational system in health and how they might organize their limited research resources and limited manpower, to carry out effective research.

THE ROLE OF CANADIAN UNIVERSITIES IN SPONSORING OR CONDUCTING HEALTH RELATED SERVICE PROJECTS IN DEVELOPING COUNTRIES

Arthur J. Hanson, Director, Institute for Resource and Environmental Studies, Dalhousie University

Defining a Service Project

In any service project the objective of the partner in relation to our own objectives, must be considered. If we subscribe to the idea of service as a part of our activities which also include teaching and research we might find that, a service project in what ever country or region we are working, may be a mix of all of these. It may include community outreach, teaching, or research.

Secondly, we may have objectives that attempt to integrate the service function with our own teaching and research or we may treat these as totally separate concerns. However, the message came through very loud and strong this morning that we should be attempting to integrate the service function with teaching and research. It would also be especially useful to try and involve younger Canadians at early stages of their careers in these activities. One of the things, we have tried to do in our work in Asia is to setup a Junior Fellow program. This program takes people who are at the post-master levels in terms of their training, and put them in contact with people in smaller universities in Indonesia to work on a day-to-day basis in the field of environmental studies. This is a two way exchange, Indonesians can come to Canada as well. The importance of this and this point was made by the Indonesians, not by ourselves, is that it brings youth-to-youth contact where people will carry on well after the time when their elders have gone to pasture or at least no longer perhaps are involved in these kinds of projects. This kind of involvement was stressed by the President of CIDA this morning.

The third point in terms of defining service projects is that I think we have to be visionary in our definition of projects. This is not the time for humdrum, tried and true activities, we have to be experimental, we have to be prepared to cope with failure, and we also have to accept the fact that perhaps the kinds of perspectives undeveloped countries need are more likely to be found, in developing country institutions then in our own. For example, it is fair to say that in the countries in which I have been working in Southeast Asia, there is a more holistic perspective of development. People talk about health professions in the context of rural development. They talk about environmental studies in relation to population distribution, quality of life and so on. In general I think that the institutions that we may work with in the developing countries are conceptualizing often far ahead of our own and far ahead of the development agencies that they are in contact with. Another point that was also raised this morning, is that the health professions should really look beyond their own boundaries. The two following examples illustrate this view.

PAHO has been involved with ourselves in the Caribbean in an Environmental Impact Assessment. Environmental assessment is vary important in terms of social concerns and in terms of health concerns we have to look at occupational safety working with engineers and with people who are involved in water-borne diseases.

In programs like the World Food Program which deal with village level nutrition and Public Works.

It is clear that it would be very wrong to divorce the health professions from ecological and social approaches to development. Resettlement activities in West Africa in disease-prone areas for example, where there is Schistosomiasis present there are problems that are not going to be solved by health professionals alone nor are they going to be solved by economists or rural development workers acting in the absence of ecological information. The basic point is that we have to be visionary.

Fourthly, the developing country may be seeking relatively sophisticated solutions and projects and we may be trying to approach them with our tried and true ways in which we can help their medical schools or rural health infrastructure. In fact in many cases, many developing countries in the world know the paradigms and these countries know what they want. What they are seeking are partners who would help to implement their plans and their ideas and this may involve an inappropriate technological mix that may have quite a few surprises for us. For example, in Indonesia the country is linked with satellites, very advanced kinds of data transmissions are possible and are important to health care plans. In traditional rural villages in Java and other parts of that country, there are 60,000 villages, where you walk into a village now and find video recorders which opens up different channels of communication. So, sometimes we find ourselves struck by things we would not immediately anticipate as the kind of assistance we would provide.

As we attempt to define service projects it is important to ask questions about the relationship of our work to international programs. Sitting in universities we often feel off the main stream of activities, we are removed from the day-to-day interaction and liveliness that can be found in organizations like CIDA, World Bank, or IDRC. In fact I sometimes make the case that the role of an organization like IDRC has become almost like an alternative kind of university setting. They are linked, in a way that no single institution in Canada other than IDRC is, into research networks throughout the Third World. So we have to ask how our individual projects, may relate to broader programs and I have tried to lay out a couple of different questions.

One is, how do we relate to large and sophisticated organizations like WHO, World Bank, UNFA (United Nations Food Activities), UNICEF and so on. Should we be on the leading edge or should we be filling in the gaps? One of the things I think is important is that we can make a strong case to be on the leading edge, to be doing some of the experimental work that is often done in a small and poorly funded fashion, but may be the most significant part of work

that is available when the big agencies come along with their willingness to enter into programs.

Secondly, will the project activities compliment or draw upon resources of international voluntary agencies? This in another important and sometimes I think contentious concern. Do we work closely enough with NGOs either within Canada or in the international realm. I think there is much more room for cooperation than we have seen up to now.

Thirdly how does a project fit into overall country relations, in the case where a project might be bilateraly funded out of CIDA. These are the sort of a questions that I think those of you who are going to be involved in the designing of service projects, should take into account. I think the responses to such questions may broaden the context of a project or may lead to expanded relationships and eventually to the funding relationships that become important over time, if the project is to succeed.

It is important that we do have to go through doubts and conflicts in our minds while we design activities and I would submit strongly that the people who do not have doubts and conflicts about the things they are doing in developing activities had better watch out. One can be very heavy minded and heavy handed, I don't know if that is quite the phrase to use, but one has to have doubts and conflicts about what you are doing or else you are not appreciating the fundamentally different natures of the society with which you are interacting. One should start questioning the strength and feasibility of the basic approach which is being proposed, for example, the literature and the radical solutions. Partners may suggest a conservative strategy in response.

UNIVERSITY ORGANIZATION AND NATIONAL STRATEGY FOR INTERNATIONAL HEALTH

G. L. Filerman, Association of University Programs in Health Administration

Whether international health is characterized as a field, discipline or as a professional interest, it is in the center of one of the most vexing paradoxes of education and international development. Lester B. Pearson was an eloquent but frequently lonely advocate of a society responding appropriately to the increasing interdependence of nations. Since his time, every man's planet has shrunk. Interdependence has become apparent to the average citizen of industrialized nations. We are impacted every day by the global information flow resulting from new technologies; the effects of trade upon our jobs, what goods we can buy and what price we have to pay. The quality of life in developing countries is no more isolated. Add the impact of foreign debt and the relatively greater dependence upon foreign goods, particularly in such a critical area as pharmaceuticals.

Indeed, it would be difficult to find a citizen of Moosejaw, Shawinigan Falls or Kamloops who could not identify several direct effects of international independence upon his or her life. Harland Cleveland summed it up well in the book "A Passion for Paradox" when he said we live "in a world where everything leads to everything else."[1] Surely, then, a mission of the university is to provide education for life in a complex society composed of complex institutions shaped by complex interacting forces. Just as certainly any definition of that complexity will address the centrality of interdependence. If, as Alfred North Whitehead said, "Education is the acquisition of the art of the utilization of knowledge"[2], by extension it is the university's responsibility to give the learner, student and faculty alike, a conceptual framework with which to cope with, if not actively utilize, knowledge of other societies and the interaction of our own with them.

A paradox of our time, which is germane to any consideration of the place of international health within the university, is the fact that the internationalization of higher education has not grown in direct response to the interdependence of society. Indeed, some contend that the reverse is true. Martin Myerson recently observed that, "there is a real danger of growing

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[1]Harland A. Cleveland, A Passion for Paradox, Global Perspectives in Education, (New York, 1977), p. 7.

[2]Alfred North Whitehead, The Aims of Education, (New York: Mentor Books, 1949), p. 167.

insularity among universities."[3] As evidence he pointed to the very significant reduction in international collaboration within academe over the past decade.

Despite what may be an increase in the rhetoric of universalism, the universities of North America have not progressed much in that direction. They retain their traditional disciplinary and indigenous focus. The imposition of problem centered activity even when focused on local or national problems is, in general, exactly that, an imposition. Internationalism is still among the most exotic of problem areas.

There are many courses devoted to the art, history and economics of other countries. Languages remain a strong component of the liberal arts. There has been an expansion of area studies, particularly those focused upon priority foreign policy regions such as the Soviet Union and China. Those are disciplinary based potential contributions to a global perspective, but they do not in themselves constitute it. Clarification of the difference between a university with international or multinational course offerings and a university community with a global perspective is central to identifying an appropriate academic locus for international health.

This presentation is based upon four premises.

International health as academic enterprise has two symbiotic foci. The first is as an area of research and teaching. The second is as a service function, often blending a research vehicle and an operational commitment to humanistic objectives. The distinction is useful because it helps explain why so much academic energy is invested in developing countries. In fact, of course, the industrialized world may hold more immediately relevant lessons for Canadian domestic policy.

A second premise is that the effectiveness of academic international health should be improved. The existing rather casual exchange of information among academics is an insufficient base from which to encourage the adoption of more successful approaches to organization, curriculum design, research collaboration and the generation of support.

Third, this convening is a statement of interest in increasing the priority for health among Canada's international development objectives. Objectives which, I hasten to note, are implemented through two agencies which are unmatched in international respect for professionalism, integrity and effectiveness.

The fourth premise addresses the evolution of our understanding of the content and role of international health. The field is experiencing a pogo-like confrontation with ethnocentrism. The challenge is to share in the construction

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[3]Martin Myerson quoted in Malcolm G. Scully, The Chronicle of Higher Education, "University Leaders From 80 Countries to Meet in U.S. Amid Doubts About 'Internationalism'," (July 31, 1985), p. 27.

of a new population-based formulation of international health, from which flows appropriate health services and medical care technology.

The university's role in international health has traditionally been defined operationally. At the most basic level it has been the provision of medical education opportunities for foreign nationals. Other entry level health professions education has been much less frequent. Medical education has for decades included post graduate specialty training, although that is not unique to the university setting. Faculty development is more nearly totally within the university domain. The content and style of the teaching programs, however, both undergraduate and graduate is virtually unaffected by either the origins or the destinations of the students. The observable administrative impact on the university is that it is sometimes necessary to provide a small support function.

Student contacts do, of course, stimulate cross-national exchange. Professors are invited to foreign schools by their former students. Entrepreneurial faculty members expand the relationships into department-to-department exchanges. A distinguished faculty member may be invited to lecture at a foreign university. But the technical content of such exchanges differs little from that of similar contacts across this country.

Academic international health has also included the work of social scientists as they have developed comparative research protocols. In the past 25 years the social science disciplines have accepted, albeit reluctantly, health specializations. Health economics, medical sociology, health policy, medical anthropology and medical history are examples. In each of these fields, comparative research has played an important role. Larger social science departments have recognized this development by including health in their definition of comprehensiveness. Many now offer one or two health related elective courses to disciplinary majors. Often such courses include a comparative perspective.

Recognition of health related research published outside of the principle journals of the disciplines has come slowly. The journals dedicated to medical care and health services research are relatively new and publication in them is not yet fully recognized by main line departments. Publication in the few journals which are exclusively oriented toward international health is even less likely to be academically influential. It is fair to conclude that the international health commitment of most social science departments is limited to a desire for comprehensiveness and is sustained by a single individual for whom international health is a secondary interest.

Physicians with an interest in broad questions of medical care organization and social scientists interested in health who sought a hospitable academic environment, often gravitated to departments of social, community or preventive medicine or to schools of public health. The social, community or preventive medicine departments have always had very limited resources, particularly in terms of hard money, so they have been unlikely to commit core funding to internationally-oriented research and teaching. But they have been sympathetic philosophically and supportive administratively. Service and

research projects funded by grants and contracts from foundations, government agencies and international organizations have been given visibility and stature among the activities of the departments. The projects have rarely, however, been influential within the parent schools.

The schools of public health at the Universities of Toronto and Montreal brought international health activities into their central programming and priorities. The traditional approaches of public health were assumed to be highly transferrable, particularly in communicable disease control and, to a lesser extent, in environmental health, health education and public health organization. The technical skills of demography, epidemiology, biometry and biostatistics were highly valued by developing countries, particularly before the world wide network of public health schools developed. A considerable amount of bench science was applied to understanding and eradicating the diseases of the Third World. Undoubtedly, the closing of the public health schools reduced the national vitality of international health by removing the only school level organizations which identified the field as priority research, teaching and service mission.

This review of traditional academic international health activities is not exhaustive, but it is sufficient to make the point that international health has been defined rather idiosyncratically by function. It means very different things across universities and in various administrative settings. On one hand there has been a healthy and creative flexibility. On the other hand, there been a lack of the critical mass, the scope of continuing activities or the accumulation of a definable body of knowledge which is essential to gain a place of permanence in the academic enterprise.

C. Peter Magrath, President of the University of Missouri, described the status of all international programs succinctly when he said, "We love them but we don't fund them."[4] Given the appropriateness of Magrath's observation and the present status of university organization for international health, it is incumbent upon the field's advocates to engage the central question. That is, what is the relationship of international health to the mission of the university?

Let me advance two models to make the point.

The first model characterizes the experience of most of us. The charter of the university does not address global interdependence. International activities are isolated in several departments and are not explicity encouraged or discouraged. There is a degree of nervousness about internationalism, lest the university be criticized for devoting resources to activities which are at best irrelevant to local problems and at worst excuses for subsidized junketeering.

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[4]C. P. Magrath, Panel Presenational at 1978 Meeting of the National Association of State Universities and Land Grant Colleges, quoted in Barbara B. Burn, Expanding the International Dimension of Higher Education, (San Francisco: Jossey-Bass Publishers, 1980), p. 60.

The second model is the global university. The institution is determined to reflect and to serve the international co-mingled interests of mankind. It is the objective of the university to prepare every graduate for a life influenced by global interdependence. It may not mean that there is an international core curriculum and required language or area studies. It does mean that every graduate in business, agriculture, engineering, medicine and other fields will understand that an international perspective is an essential element of competence. To quote Franklin Walling, it is a community with a

> "...perception that the kind of learning we seek happens across - an interdependent curriculum, and in the whole of a learning experience. An education for a world view is not just a broad perspective but an awareness that entails many competencies for understanding a wide variety of specific issues around the world."[5]

The reward system of this university recognizes international research, teaching and service. On such a campus, international projects and activities would be both loved and funded.

In the latter institution, international health activities would presumably thrive, while in the former setting they are often regarded as alien unless they are income producing. Most institutions have elements of both models, a philosophic statement recognizing the changing world while operationally they are, in fact, inward-looking. Our universities are, to coin a phrase, remarkably provincial.

It is an opportune time for internationally-oriented health faculty to address the gap between the philosophic generalities and the operational reality of the greater universe. The evidence of the effects of international economic forces on daily life, continue to increase. The relevance of a global perspective to the traditional role of the university, can be shown more clearly now than ever in our history. However, there is also a place for realism. Some universities will not, and probably should not, attempt to operationalize a global perspective. They may lack the appropriate resources, they may not have the administrative strength to weave resources together appropriately, or they may face a hostile political environment.

A national strategy to develop Canada's academic international health competence, should recognize that it is not an appropriate field for all institutions. In a number of cases, significant individual contributors to the field are based in institutions which do little beyond providing shelter to externally funded projects. Investing substantially in them in the context of a national development effort is not likely to be productive. There may be institutions with less visibility in the field but which hold great promise as permanent resources, particularly if we re-evaluate our concept of what constitutes academic

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[5]Franklin A. Walling, "Universities For A Small Planet - A Time to Reconceptualize Our Role." Change, Vol. 15, No. 2, (March, 1983), p. 8.

international health. What distinguishes the two kinds of institutions is the proximity of international health to the universities goals and values.

Assuming that an institution is among those with a realistic potential for developing a global perspective, international health faculty can play a key role in creating a hospitable and supportive academic environment for their own interests. To do so will require a considerably more effectively articulated definition of international health and a considerably stronger, more rigorous intellectual basis for it. It is the responsibility of international health faculty to demonstrate that they can contribute to undergraduate teaching, to quality interdisciplinary research and to the mentoring of graduate students from a variety of disciplines. In other words, they must demonstrate the relevance of international health by meeting the greater university on its traditional terms.

The inadequacy of the contemporary definition of international health is a serious impediment to achieving academic centrality. Summarizing technical skill-transfer experience, is wholly without a conceptual framework. It should be possible to define international health in a way which addresses both the real needs of other nations and the real need of this nation, for a construct which clarifies the place and inter-relationships of other disciplines in the international health development process. That construct will clarify the relationship of interdisciplinary international scholarship to disciplinary scholarship. It will facilitate the appropriate evaluation of international health research and it will suggest where understanding international health issues can contribute to mainstream development of the disciplines. A well-reasoned construct will have logical integrity as opposed to appearing as an amoeba-like form surrounding every particle of related activity.

A contemporary formulation must address the right questions. In 1979 the International Council of Scientific Unions (ICSU), with IDRC and CIDA support, assembled a conference on technology and development. There was unusually broad participation across the natural, medical, engineering, and social sciences. ICSU reported the conclusion that,

> "...the mere transfer of technology is not the end, but the beginning of the problems, and the social and other obstacles are extremely relevant; a mere infrastructure is insufficient. But there is a need to integrate and to articulate the scientific and the technological competence, which could only be acquired very gradually, with the educational, and political systems. This is a very complicated and difficult task, which is still not completely achieved, even in countries such as Canada."[6]

While the medical sciences and the academic health sciences have successfully contributed to development efforts, they have reached a point of

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[6]Alexander King, "Role of the International Community," cited in Canada's Role in Science and Technology for Development, (Ottawa: International Development Research Centre, J. King Gordon, ed., 1979), p. 36.

diminishing return. There is a widening gap between the trajectory of modern medicine. Based on Western premises, the principle beneficiary has been the industrialized sector in countries which remain essentially non-industrialized. The new construct must recognize that cultural difference is not a barrier which is to be surmounted with increased doses of high technology health sciences.

John Bryant reminds us that,

> "...both the design of health care systems and efforts to change them are inhibited by the heavy hand of Western tradition. The irony of this story is that some of the more developed nations from which these concepts were exported are now vigorously reassessing and modifying their own systems, which they see as inadequate to meet the needs of their own population."[7]

Population-based medicine, appropriate technology and primary care organization, are challenging the traditional premises of international health. These concepts reverse the flow, coming from the culture to the technology rather than imposing the technology on the culture. The new definition of international health will therefore direct attention to the study of the interaction of culture and development. That is the bridge to the social sciences. The construct will embrace the interaction of history, public policy, economics, agriculture, education, religion and sociology and their theorectical effect upon health status. The construct, if effective, will give us "a way to transcend our biases, to get some distance to our perspective and direct ourselves into different ways of seeing the world."[8] Such fresh thought can be stimulated in an academic enterprise which is organized to transcend traditional categories of knowledge.

How is such an enterprise to be fostered? I have posited requisites for the university and for the field of international health. If the university has not recently reviewed its international interest and role, there is an opportunity for leadership. The international health specialist, fortified with a derivative of the definition just suggested, is well positioned to take the initiative. What more appropriate source of faculty leadership than representatives of the health sciences urging colleagues toward an expanded horizon for the university's intellectual competence.

There are a plethora of catalytic agents available to the strategist of campus change. The faculty senate may agree to recommend the creation of a university-wide task force. A position paper describing the challenge and taking an inventory of applicable resources, might precipitate action. A colloqium on development could draw upon diverse disciplines. A lecture series might be

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[7]John Bryant, Health and the Developing World, (Ithaca: Cornell University Press, 1969), p. 92.

[8]"The Land University's Programme on Technology and Culture," Development: Seeds of Change, (Vol. 3, No. 4, 1981), p. 111.

designed to underscore the breadth of disciplinary-based international health interest. Such activities can be pursued simultaneously.

Even a positive response may have only marginal impact in the sense of added courses to the undergraduate menu or increased curriculum flexibility to accommodate budding internationalists. The objective is to stimulate settings to respond at a higher level with the potential for nurturing a concentrated international health research and teaching effort. One practical goal is to gain the commitment of modest start-up capital. Institutional seed support would minimize the grant constraint syndrome in which nothing happens until there is an outside grant or contract, which often results in the complaint that it is overly restrictive and fails to contribute to the university's primary mission.

A realistic national strategy for the future includes the development of two or three such focal points or centers of international health. The ideal settings would offer access to a variety of complementary strengths in agriculture, the physical sciences, social sciences and health sciences.

It is important to objectively assess the success and failures of the center or institute model. Many centers have been short-lived, while others are perennially anemic. They often lack a solid faculty constituency. As long as participating faculty hold their primary appointments in other departments and disciplines they must cater to other reward systems and demands. For the same reasons, politically potent faculty are often reluctant to commit significant political capital to the interests of the centers. Some centers are correctly perceived as the short-lived products of a single grant, or as the province of a single entrepreneur. Many interdisciplinary centers are, therefore, inherently fragile because they depend on "hand-shake diplomacy" for support, relationships and access to the resources of other departments.

These realities of academic structure must be acknowledged. Steven Muller, President of Johns Hopkins University, said in his 1978 annual report that,

> "Much of the world in which a typical faculty member operates daily, is bounded by his or her academic department. Such circumstances do not encourage interdisciplinary work among faculty. Aside from the difficulties of bridging fields that engage scholars in this age of extreme specialization, work that is interdisciplinary is also interdepartmental. This often adds organizational obstacles to substantive problems. ...To succeed, (interdisciplinary) work must overcome the built-in resistence created by the autonomous department."[9]

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[9]Steven Muller, "The President's Message," Annual Report of the President, 1978, as quoted in Barbara S. Burn, Expanding the International Dimension of Higher Education, pp. 146-147.

However, some of the weaknesses have corresponding advantages - flexibility, access, visibility, agility and separate accountability. Keep in mind the experience of the University of Chicago. Albeit atypical, it is one of the most disciplinary-based and research-oriented of institutions. Nonetheless, its campus in enriched by several interdisciplinary centers and institutes, most of which are distinguished and some of which have degree-granting authority. This and other experiences show that the advantages can outweigh the disadvantages given the appropriate purpose, focus, functions, support and structure.

The central purpose of a center is to facilitate aggregation of disciplinary resources relevant to international health research, teaching, and service. It is a university-wide resource stimulating exchange relationships which contribute to the mission of other units as its draws upon them. In that way a vitally important constituency is developed. Conversely, if self-centered, it's constituency will evaporate and the center will be seen as competition for suppport rather than as a net contribution.

Another purpose of a center is to sustain competence, which is essential in managing scholarly and productive international health activities. There is a special expertise to linking reward systems across schools and departments while assuring adherence to the values of the university. The inherent conflict between product delivery and university can be a source of conflict if employees can be characterized as pseudo-faculty hired through, rather than by, the university. Such international operatives are usually to be found in Bangladesh and rarely teaching, researching or interacting with campus-bound colleagues. Experienced center management would minimize such separation of mission.

The center model can be optimally resonsive to externally focused international health objectives. The most obvious is the concentration of expertise relative to donors and sponsors. Relationships with national and international agencies are complex and unique. It is seldom sufficient to leave them to the individual subject matter specialist. Similarly, there are opportunities to identify and cultivate new sources of support which may respond to unrealized potential within the center's scope. Thus, I would argue that an important purpose is to place donor relations at a higher organizational level, not to exclude individual faculty members, but to maximize effectiveness.

The key to a center's administrative and academic integrity is a clear statement of focus, which is incorporated into all of its activities. Just as all universities are not appropriate settings for international health centers, so all centers are not appropriate settings for international health activities. The critical concept is affinity. Geographic affinity, disciplinary affinity and activity affinity. Sharpened affinity recognizes that the world, particularly the Third World, is not uniform. In defining a geographic thrust, it is important to survey existing areas, studies, concentrations, and other regional interests on the campus and to build upon them. Geographic and language affinity will be usually comfortably coterminous, for example English speaking Africa or French speaking Africa or Spanish speaking Latin America. It is essential that the centers operate with appropriate foreign language competence. It is not

adequate to say that English is the most common language of science and health, or that most of the educated people speak French or English as if that is a part of the definition of competence.

The usual foci of international health activities are rubrics such as epidemiology, pharmaceutical production and distribution, medical education, health planning, nutrition, disaster reaction systems, primary care management and so on. These and similar foci may be appropriate lines of interest or sub-areas of competence within a center. But the center role advanced here is predicated upon a considerably broader focus. The distinctive competence of the centers would more appropriately be at the level of rural health development, human resources development, public health program development, private health sector development, etc. In suggesting this breadth I recognize a certain degree of arrogance since we have not demonstrated success in applying the approach to the solution of our own problems.

The primary function of an international health center must be scholarship comprised of research and teaching. Evaluation skills form a research bridge to technical assistance projects. The center can make a significant contribution to the global university as an open resource, encouraging graduate students in all disciplines to look to the center for guidance with international health related research projects. Similarly, center faculty have an obligation to involve colleagues across disciplines in designing and implementing research projects. Faculty development flows naturally from such an environment.

Ideally, the centers would have multi-national faculty. In putting that concept forward, we must recognize the conflict with Canada's nationalistic impulses as embodied in the "head and shoulders" policy of faculty recruitment. That problem can be met with a finely tuned statement of the purposes and function of the center.

Generations of foreign nationals have studied in Canadian universities at a relatively high opportunity cost to themselves and their nations. They returned home with respectable credentials, but from less then optimal educational experiences. Most of them completed programs which were not designed to meet their needs. Functioning as manager or designer of educational programming, a center can reduce the opportunity cost substantially by designing programs of study around individual learning needs. The expertise necessary for appropriate educational technology comes from the geographic, political, and linguistic affinity discussed earlier. Faculty then has an appropriate base from which to provide the protective advocacy which foreign students often require.

The reverse educational design opportunity is for Canadians aspiring to careers in international health. A substantial portion of their education will be steered out into the greater university. There is an opportunity for CIDA and other donor agencies to support the education of Canadian trainees in priority areas such as primary care, emergency services, nutrition and health services research. Productive field work opportunities can be developed as a result of

long-term working relationships with academic and service institutions in affinity areas. Additional teaching functions would include networking with other institutions in the same part of the country, providing campus-wide lectures and, very importantly, offering undergraduate survey courses in international health which demonstrate the interdisciplinary nature of the field of study.

This approach to domestic institution building, suggests the crystallization of center purposes, focus and functions before raising the question of support, to underscore the extraordinary unrealized potential which exists in the field of international health. If long-term resources are to be captured, then a bold concept must be advanced at the campus level and in the context of a national development strategy. The government is the logical source of start-up support. Competitive seed grants should unabashedly carry the quid pro quo of on-line commitment from many departments, schools and the university administration. Initial support should be for at least five years, but with a requirement for the self generation of project support and/or partial institutional core support by the third year. As centers develop the cross national relationships essential for long-term programming, there are possibilities for the development of in-kind support systems in the affinity countries and regions. Finally, there is the possibility of trainee support from donor agencies.

Form follows function. Rather than starting by conjuring up organization charts, the structure should flow from the concept of each center. However, it is important to stress the need for a broad sense of ownership by the units of the university which are to participate. A strong advisory structure with such representation would be enriched by the presence of nationals from the regions of primary interest.

The development of a small number of such centers would be one key to assuring a sustained and cumulative international health competence for Canada. It would be a cost effective system in which dollars, talents and projects would be mutually reinforcing. As a system, the centers can be viewed as hubs of national, regional and campus activity. Collaborative programming for the system would focus attention on priority Canadian health development objectives.

A number of institutes and centers in other countries may be interested in establishing links with Canadian centers. Formal agreements with one or more, grouped either by region or purpose, would be advantageous for both. Likely candidates for linkage would be as diverse as the Pan African Development Institute in Cameroon, the Public Administration Training Centers in Costa Rica and Morocco, the Nutrition Institute in Guatemala, the Diarrheal Disease Research Institute in Bangladesh, the Indian Institute of Management in Ahmadabad or the Asian Institute of Management in Manila. Such links certainly support the IDRC philosophy of partnership to build indigenous capacity.

Elaborating upon the center model serves two purposes. First, the implementation of such centers and a corresponding network responds to the

premise put forth earlier, that the effectiveness of academic international health should be improved. The elaboration also directs attention to the spectrum of issues characteristic of that approach to university organization. The centers would contribute to the academic visibility and stature of international health throughout the country. Research output and quality would be improved. Individual projects and programs in nearby institutions could relate to, and benefit from, the centers. On the other hand, the centers could monopolize access to limited resources, closing out many small academic entrepreneurs. Realization of the center theme or variations may depend upon the ability of the field to coalesce behind the idea. The center model does not directly address the needs of most international health workers in most universities for a coherent system of university involvement.

Canada's international health education resources are, in fact, dispersed widely. They can be aggregated to advance the interests and productivity of the field. Enhancing the place of health among develoment objectives is itself a potential focus of coalescence, as is public understanding and support for CIDA and IRDC.

A Canadian Council on International Health would provide a locus for national, international and campus development. Bringing together academics, donors, corporations and governmental agencies, the council would provide a common ground for the convergence of their interests. Enhanced communication among scholars will strengthen their individual work and reduce organizational and geographic isolation. Talent and creativity would be more rapidly visible. The flow of ideas between implementors and academics would be accelerated. Very importantly, such a body would be a source of encouragement and direction to universities, departments and individuals, potentially entering the field.

The health professions and delivery infrastructure lacks a consistent link with academic international health. Much of Canada's unique experience and talent is most effectively accessed through the Canadian Medical Association, Canadian Nurses Association, Canadian Hospital Association, Canadian College of Health Service Executives and the Canadian Public Health Association. Their participation in a Council would encourage enrichment of their meetings and other activities. In the absence of such a structure, those organizations do not have ready access to the full range of available intellectual talent. The associations are also an important source of support for efforts to enhance public and political understanding of international health.

The development of a council must be carefully staged to avoid creating a bureaucracy which cannot be supported over time. It could be organized under the umbrella of one of the professional associations or within AUCC. CIDA would have an obvious interest in the viability of such a project. A council might give international health visibility by meeting in conjunction with other professional academic associations. An occasional newsletter show-casing the activities of agencies, universities and organizations would also be a valuable contribution.

Effective strategy rests upon appropriate premises. This presentation has set out several premises and elements of a strategy for Canadian academic international health development. Both are intended to support the conclusion that invigorating international health on the campus level will be achieved only through deliberate attention to both the national context and the internal content of the field.

Poster sessions formed part of the conference program. Information on several interesting and innovative research projects and programs were on display. The following abstracts are a selection from the number of excellent posters.

SURGICAL ILLNESS AT THE DISTRICT LEVEL IN PAKISTAN

R. Blanchard, M. Blanchard, M. Ahmed, P. Tousignant, C. Smythe

As a basis for designing an undergraduate surgical curriculum and to help in planning postgraduate surgical training goals, we have studied the surgical conditions treated in a number of communities in Pakistan during 1983. The target populations related to district-level hospitals. We chose the hospitals based upon pre-determined criteria, designed to ensure that we were observing the surgical needs of the district, undistorted by large numbers of patients leaving the district, or others coming into the district for treatment.

The criteria for selecting hospitals were:

1. The hospitals must be far enough from major tertiary care centres that the great majority of patients in the region use the study hospitals for almost all their surgical problems.
2. In regions where two or more hospitals share the total surgical care, all such hospitals were to be studied.
3. The hospitals were treating almost all types of surgical illnesses.
4. The hospitals should ideally be located in a region of stable population.
5. The hospitals serve as primary - and secondary-care surgical centres.
6. The hospitals kept complete records of all operations in 1983.

We visited 29 hospitals, of which 19 met the above criteria. The only consistently reliable source of data were the operating theatre registers. These hospitals comprised a total of 3,895 beds of which 1,262 were assigned to surgery. All 19 hospitals performed a wide range of operations although only 10 had fully-qualified surgeons, 13 had fully-qualified gynecologists, and 8 had qualified anaesthetists. Only 4 had other surgical specialists. A total of 23,839 operations were performed in the 19 hospitals in 1983.

We classified all procedures in each hospital into 98 different categories which accomodated all the procedures done excluding opthalmologic, otorhinologic and dental operations.

When all procedures were grouped according to current subspecialities, the proportions were: General Surgery, 38%; Gyneocology/Obstetrics, 30%;

Urology, 19%; and Orthopedics, 13%. Only 1% of the operations did not fall into any of the above. A surgeon trained to treat only "general surgery" problems would be equipped for less than 40% of the needs of these communities. (See Table 1)

Interviews with community leaders confirmed that patients in the districts studied mainly used the hospitals studied. Opinions regarding which surgical conditions caused the greatest suffering were fairly consistent amongst districts. A disabled "breadwinner" caused the greatest family hardship.

In was concluded that: I. A discrete and manageable variety of operations was being performed (98 categories). 2. The operations spanned 4 surgical specialities. 3. There was a dearth of surgeons and a low surgical rate. 4. Surgical teaching and training in Pakistan should be broadly-based and comprehensive rather than narrowly-focussed.

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Table 1 - Population and Rate of Operations in Three Regions of Pakistan

Region	Populations*	Number of Operations	Rate of Operation Per 100,000 Population
Hazara District	2,855,229	3,218	113
Northern Sind	5,126,515	6,003	117
Northern Baluchistan	3,087,188+	4,518	146
TOTALS	11,068,932	13,739	124

* 1981 census numbers augmented by 5.7% (based on annual growth rate of 2.81% between the 1972 and 1981 censuses) to give estimated 1983 populations (2, 3).

\+ Including 730,000 Afghan refugees in Baluchistan in 1983.

THE CANADIAN INSTITUTE OF TROPICAL HEALTH

J. Dick MacLean, McGill University and Pierre Viens, Universite de Montreal

Proposal

It is proposed that an Institute of Tropical Health be created in Canada. This institute will function primarily as an educational resource for health care professionals from developing countries. It will concentrate its activity in the fields of Third World oriented community health, epidemiology, nutrition, management, clinical research, and clinical tropical medicine.

Centres of educational and research excellence, already operational in Canadian universities, will provide the core courses coordinated by the Institute. The Institute will have a central communicating and coordinating office linking the network of scattered Canadian resources, making available to Fellows from the Third World, a range of educational programs, second to none in the world.

Goals

The goals of the proposed Institute are as follows:

1. To improve communication and collaboration between the Canadian medical education faculties with commitments to the education of Fellows from tropical countries.

2. To improve and increase the role that Canada plays in the education and research of medical care professionals in the Third World.

3. To function as a permanent source of funding for Third World Fellows wishing specialized postgraduate training in Tropical Health Sciences.

4. To function as a strong and coordinated lobby to seek Tropical Health educational and research funds for involved Canadian Medical Schools.

5. To create a higher profile for Canadian Tropical Health educational and research endeavours in order to attract Fellows and international funds (e.g. WHO Fellows, etc.).

6. To facilitate collaborative Tropical Health educational and research endeavours among Canadian medical schools.

7. To facilitate Tropical Health field research by Canadians.

Discussion

An Institute is required for the following reasons:

1. There is insufficient communication or collaboration between the scattered Canadian health facilities attempting education or research in the fields of tropical health. Each medical faculty lacks the critical mass of teachers or researchers to provide the breadth of training required by Fellows from the tropics looking for management, epidemiology, community medicine, and clinical research skills. The combination of the medical faculty resources in Canada linked together in an Institute of Tropical Health will offer the coordinated critical mass of educators necessary to produce new and more viable courses for both Third World and Canadian health care personnel. These courses could be short-term (2-3 months), and long-term (1 year to 3 years).

2. European centres of Tropical Health education have become far less effective over the past decade as the economies of these countries have become strained and as, without their colonial empires, financial resources are redirected. The cost of courses offered in London and Liverpool are now prohibitive for Canadians and impossible for most health care providers from the Third World.

3. While ideally, training of scientists, health care providers and teachers should be carried out in their own country or in other tropical settings, the realization of this ideal is far off. There will remain for some time, a need to have available Fellowships to train future health care leaders in these countries. The better utilization of already present Canadian unorganized resources could play an important role.

4. Demographic changes in Canada have increased the importance of the field of tropical health in Canada. Approximately 70% of all immigrants come from the tropics, tourism in the tropics is rapidly increasing, and Canadian industry is expanding into Third World areas. Thus, tropical illness is becoming and will probably remain, a much more important concern to Canadian health providers than in the past and training of Canadians in this field requires attention.

5. Nowhere in the world is there an Institute of Tropical Health with a bilingual, French and English capability.

Resources

The resources available today are as follows; others will undoubtedly become available.

1. Educational institutions, examples only:

   - McMaster U. - epidemiology, community health
   - U. of Manitoba - nutrition, infectious disease
   - U. to Toronto - clinical tropical medicine, community health management
   - U. of Montreal - clinical tropical medicince, community health
   - McGill - clinical tropical medicine, epidemiology, parasitology
   - Dalhousie - epidemiology, community health

2. Funding agencies:

   - CIDA - Fellowships
   - IDRC - research funds for Fellows
   - Foundations - Fellowships
   - WHO - Fellowships
   - MRC - research funds, Fellowships

Operations

Administrative Centre: The administrative centre will function as follows:

1. Develop communication between the collaborating university centres with education conferences, planning meetings, and news dissemination.

2. The centre will be a body separate from any university or government organization with a Board of Directors representing major donors and collaborating medical schools.

3. The centre will advertise for, recruit, and screen Third World and possibly Canadian Fellows for the training programs coordinated by the Institute.

4. The centre will produce a high profile for Tropical Health education and research, and thus facilitate the raising of funds for the education of and research support for Fellows.

5. The centre will define and coordinate educational courses and programs for Fellows utilizing the resources of the participating medical schools. For example, a Fellow with an interest in tropical nutrition could do a 1 year program in 2 or more sites with the emphasis in each site being on their area of interest, expertise, and research.

6. The centre will develop collaborating tropical field stations to be used for both education and field research training by Fellows.

7. The centre will stimulate medical schools in Canada to increase their commitment to Third World Tropical Health education and research.

The Institute's Centres:

The centres of the institutions will function as follows:

1. Accept a proportion of the continuous flow of Fellows attracted and funded through the Institute.

2. Provide both short (1-3 months) and longer (1-3 years) educational programs in their area of excellence.

3. Assist in finding research resources and supervision for those Fellows, following a research direction.

4. Make use of Institute's collaborating tropical field stations when educationally appropriate for their Fellows.

5. Contribute to yearly short courses organized by the Institute in various Canadian cities for Canadian and American health providers.

6. Contribute to the directorate of the Institute.

THE PREVENTION OF CHILDHOOD MORBIDITY: A SOCIO-ECOLOGICAL APPROACH

Norman F. White, S. Martin Taylor and John W. Frank, McMaster University.

The Grenada Child Health Project is a multi-disciplinary, multi-institutional initiative which has developed with the Grenada Ministry of Health through three administrations since 1981. Its goal is to develop methods for the reduction of early childhood morbidity related to the diarrhoea-malnutrition-parasites-infectious disease 'diarrhoea complex'. This prototype prevention strategy requires no high technology or advanced training for those carrying it out, entails no cost beyong present budget, is culturally non-disruptive, and is generalizable to other locales and diseases. Specific objectives have been: to reduce early childhood morbidity in project communities, establish a data base, determine the most useful types of community organization for delivery of Health Behaviour Education (HBE) and Oral Rehydration Therapy (ORT), develop an instrument for targeting of high-risk households, and develop suitable educational methods and materials.

The 'diarrhoea complex' has multiple determinants: nutrition, housing, sanitation, water supply, hygienic habits, food preparation habits, and child-care practices. Biomedical treatment approaches are ineffective and expensive, and provision of pipes and pumps unaccompanied by changes in water use and sanitation habits has shown limited (or even negative) utility. A socio-ecological model suggests the smallest number of most easily and comfortably altered community behaviours to bring about a lower morbidity outcome. Although ORT is a technique of well-established efficacy, its effectiveness depends upon attitudes, skills, and appropriate institutional and community supports. The training of primary health care personnel necessary to achieve these overlaps with the community education necessary for primary prevention.

ROC Curve for Three Best Predictor Variables Weighted by Logistic Regression

Excerpts from work-in-progress show steps from morbidity measurement to intervention targetting. Data demonstrate how a risk-assessment instrument suitable for untrained workers was developed. Illness burden/distribution was determined from hospital and health-care records, self-reports through community surveys, and validation against nutritional status indicators. From information about water/hygiene, socio-economic status, child care practice, and knowledge/beliefs, risk markers were selected to construct statistical models which predict morbidity with a sensitivity of 0.93 and a specificity of 0.87. The final step is locating the best cut-off with the best three predictor variables (boil/no boil water, cleanliness of house, covered/open kitchen) using an ROC curve.

INTERNATIONAL DEVELOPMENT AND HEALTH ISSUES; CHALLENGES FOR CANADIAN UNIVERSITIES

Ian McAllister, Lester Pearson Institute for International Development

During these two days we have focused on the conference theme "Health for all and the role of Canadian universities". I shall not presume to attempt to recapture in ten minutes what has been argued with conviction and eloquence both in plenary sessions and in various workshops. These comments will simply highlight a number of the main points and add a few observations.

CIDA's President reminded us of the scale of the challenges that face all concerned about the health problems and inequities in the Third World. What is already awesome will be magnified in size and complexity over the coming decades, as population expansion continues and as urbanisation generates more and larger city-slum conglomerates. Dr. de Macedo painted some of the dimensions of the difficulties to be found on the South American continent; Gloria Nikoi took us to Africa, George Joseph to India and Robin Roberts to the Caribbean. While Margaret Catley-Carlson injected a refreshingly positive note, especially in spelling out details of the progress in immunizing children, the thrust of the debate was on the pressures of population in many regions, the impact on the towns that already lack many basic amenities, the relatively picayune amount of domestic resources available for primary education or very basic health services in so many nations, the inadequacy of many governmental structures. The list went on and on, an inventory of challenges of staggering proportions for mankind as a whole ... not only if we wish to develop more egalitarian societies, but also if we wish to avoid an era of unprecedented destruction.

We are clearly sitting on a global time-bomb. At the root of much of the tension and repression is dire poverty and an outrageous degree of resource misallocation. What is spent in one week, by many a North American family, on cans of cat-food or on pills for obesity, exceeds the annual amounts available for the health care of a crippled child or of an extended family, in many a Third World nation. Moreover, while indeed one can see, in much of Africa, Asia and Latin America, problems such as the vicious cycle of polluted water and disease (graphically shown in the IDRC film "Prescription for Health") - one can also quite often find, only a few miles from those shanty towns and squatter villages, tree-lined avenues with mansions and luxury hotels, palatial military barracks and expensive hospital estates with technical equipment that is not even in use. The settings, thus, into which foreign aid is injected are frequently ones of paradox, despotism and complex distortions. Naively designed or delivered aid projects can, if donor agencies are not wary, reinforce imbalances and feed corruption, rather than make life a fraction the better for the poorest who really need the help.

There are inevitably times, in conferences such as this, when missionary fervour skips pass the realities of international development experience. Yet, without some sense of optimism and a genuine belief in the intrinsic worth of each human being, what can be hoped for? One Sister Theresa is, surely, to be valued at every cent's worth of a hundred million dollars of power dams or new highways (especially when such may fail to result in a genuine betterment of the lot of the poor and regardless of the cost-benefit ratios that may be vaunted by development agency press reports.) For the larger part, this conference has been characterised by concern for the art of the practical; emphasis on 'down-to-earth' aid assistance kept recurring, seasoned by the hard experiences of participants. The fact that so many speakers had worked in village clinics or on rural health programmes of various kinds gave a depth to much of the discussion. Behind the statistics were real people - and the speakers could remember their faces, their smiles, their tears ...

Gloria Nikoi emphasised the importance of local participation in the early planning stages of projects; other speakers re-inforced that point. Many also were the pleas that aid assistance should be in accordance with the priorities of the Third World peoples and not merely transplanted projects, surplus to industrial society requirements. Some speakers showed more faith in the integrity of governments than others. When, for example, a government is in power as an outcome of a military coup, can that government be expected to represent the priorities of the majority? To what degree should aid activities by-pass governments and be directly related to grass-root groups? Should aid projects re-inforce revolutions? Does aid given to a medical clinic merely free up domestic resources for guns or police cars? Whether the theme was educational programmes for Third World students or faculty, the transfer of technology or the support of co-operative research programmes - the discussion kept returning to that difficult concept "appropriate" ... appropriate to whom and according to what criteria ... appropriate in the context of what options and with what implications? ... Many speakers emphasised that appropriate always has to be seen in terms of what the recipient people really do want - not in our terms - in theirs. We have to avoid thinking that "we know best" simply because we may come from a wealthy environment, where so much of life is so much easier.

International development aid prescriptions from the donor countries have often led to imaginative versatility by recipient peoples. I remembered, as Richard Wilson was speaking, a story told by a student from Aghanistan. A few years ago, when he had been an official with the Afghan Development Bank, the Russians had asked his government what aid they would like for the Northern region. The answer had been 'buses'. The Russians responded that they would not give buses, but that they could provide tractors for an agricultural programme. Within a few months, the Agricultural Development Bank duly received a shipment of tractors and allocated them. After a year or so, the official went up north on a tour of inspection. He was surprised to see no evidence of tractors in the fields ... As he approached the first large town he learned why ... a tractor roared past, with a large wooden trolley in tow, ladened with people ... the Afghans had their bus system ...

A number of speakers noted that developing nations are far from uniform in their particular priorities or 'stages of development'. This is a constant challenge to the sensitivities of would-be donor nations. Sweeping generalisations, such as "rural self-sufficiency" or "balanced growth" may have a satisfactory resonance for parliamentary speeches, but they can readily become slogans to encompass poorly conceived aid packages. Canadian aid, just as that of any other nation, has to be constantly reappraised as to directions and scale. In terms of scale, it is clearly not generous enough. Any number less than 1% of the GNP of this massively wealthy nation can only be viewed as miserly. Yet we are still short of Pearson's proposed 0.7% target - and that was suggested as far back as 1968. These numbers, it has to be remembered, are to be seen in the context of data showing that for each hour of 1985, for example, some 2000 people will needlessly die in Third World nations because of malnutrition and polluted water. Most of them will be children.

Because of high unemployment in Canada, there seems to be a current belief that aid has to be justified in self-serving terms. The support of Canadian trade development is viewed, apparently, as the top priority for much of Canada's aid allocation, as distinct from being a secondary by-product, subservient to the assurance that Canadian aid is genuinely responsive to the basic needs of the peoples of the recipient country. This is, I believe, an unacceptable premise for aid planning - which is not to suggest that there is no role for aid as an adjunct to trade development policies, nor that tied aid can have no reasonable place. But it is to argue that aid advocates should not be afraid to make the case for aid on humanitarian grounds primarily, and all other reasons should be ranked only as secondary considerations.

The primary case for aid is moral, not economic, educational or political. But to be effective, aid requires a far greater degree of sophisticated sensitivity than is often to be found. That point has recurred throughout this conference and it has often been made in the context of "What can Canadian Universities contribute to Third World development - particularly in the field of health services?" Several points might be extracted from the discussions on this general theme:

1) Canadian faculty and students are in an enormously privileged position - we are not experiencing the kinds of pressures that are the lot of many politicians and senior public servants. University members have a responsibility to make public comment on the apparent strengths and weaknesses of major policies - such as for foreign aid. Obviously such comments should be able to be supported by responsible research.

2) Canadian universities clearly have a number of strengths to offer international development aid programmes. They provide relatively open and undogmatic environments, they have many students from overseas in their academic programmes and a good number of faculty, they have some faculty and students already working in Third World nations in various capacities, they have all kinds of publishing avenues for ideas, they enjoy international credibility in a number of fields ... the very fact that they are in Canada, not located in a nation with an imperialist past or perceived such

intentions ... all are advantages ... moreover, many of the universities are getting somewhat better organized to participate in international endeavours, (thanks in no small part to the efforts of such activists as Ralph Campbell, Lewis Perinbam, Romeo Guillbeault and Michael Oliver)...

3) But some cautionary comments must also be noted - and these recurred during the sessions. As universities face tough budgetary times, there are many pressures to defend existing departmental turf rather than to take on further challenges; there are very strong forces (in practice if not always in the public statements) to view many existing, department activities as of 'core importance' and products of some 'golden age' - rather than to risk moving into the cutting-edges of a field in association with other disciplines; there are strongly entrenched views in many departments that define the role of a 'respectable academic' in extraordinarily parochial terms ... in Halifax, indeed, we sometimes sense that an international conference implies an activity in Manitoba (or even Truro) ...; provincial government relationships, moreover, despite what may be said when premiers and other dignitaries are given honorary degrees, have rarely been worse. Nor is all the fault by any means on the provincial governments' side. A number of speakers have pointed out that if Canadian universities are to be credible internationally they must also cover their bases regionally ... they need to be credible in their own areas, in the terms of the people of those areas ... If, to take Dalhousie for an example, this University is to persuade CIDA to fund interdisciplinary teams to work on development projects in Bangladesh, Jamaica or Botswana - then should not some of those approaches have been proven in the context of serious local problems such as are found in Cape Breton, on the coast of Labrador, or in nearby communities such as Preston? The Halifax Chronicle Herald this week stated that, despite possibly serious health risks, the Provincial Government was committed to re-open the coke ovens at Sydney Steel ... because fifty jobs were at stake. Cannot Dalhousie faculty, drawing on applied interdisciplinary research, suggest a mix of better options to hard-pressed politicians? If one is not worried about such local problems, how can one expect to acquire the credibility to spread, as a university as opposed to individuals, into the international arena? Balance those comments in the Chronicle Herald with the headlines of the current issue of the official Dalhousie paper, the Dalhousie University News. They read: "Parking Problems Should Ease Soon". If that is the kind of promotion Canadian universities give themselves (and they often do), then is it small wonder that provincial ministers question the case for additional funding? Nor was that headline unfairly unrepresentative. The other main heading reads: "Senate has come full circle." Throughout this conference, it has become clear that Canadian universities ignore the provincial governments and their regional bases at their risk.

4) In reviewing university experiences in international development, several issues were highlighted by Arthur Hanson and Richard Wilson. They included the importance of genuine commitment, albeit this might result in many complications for time-tables, sabbatical plans and sometimes for resource allocations. They also included the long-term nature of most

projects if they are to be effective in a genuine manner, and not simple gossipy items for reference at convocation times. The importance of a real appreciation of cultural and economic factors was then almost a refrain in the workshops. It was argued that such is necessary if many health problems are to be overcome as distinct from the mere patching up of symptoms ... Several speakers voiced frustration at the difficulties of harnessing interdisciplinary research to address major international health issues, in large part because of departmental rigidities.

This conference has brought together educators and practitioners in the provision of health services from around the world. Many of you have devoted much of your working lives to helping the lot of those in the developing world - and you have shared here some of your visions and your frustrations. Whether you be from Canada or overseas, you have made it clear that, without windows and doors to the developing nations, Canadian universities cannot provide any students - be they from Canada, France or Malawi - with the quality of education that is relevant and necessary for their future in a tightly interconnected world. The importance of exchanges of ideas, research findings and, above all, people was noted time and time again. In Canada it is clear that we forget at our peril that this nation has built up its reputation and wealth substantially because it has been open to trade - to foreign investment - to waves of immigration - to foreign students and faculty - to foreign technology - to new ideas. Only last week a Canadian diplomat remarked that his own real education did not begin until he was posted to India ... that was the first time he had been exposed to culture with such a diversity, history and depth that it provided an entirely different paradigm by which to compare his Canadian and Western European experience. Subsequently, he said, it had enabled him to appreciate the nuances of other great cultures - including those of the Soviet Union and China. Such insights are surely of vital importance for effective Canadian participation in the world of 1985. Yet, at the very moment that we are allocating more for Canadian trade development in the Third World - we are, in blanket fashion, making it increasingly hard for students to come to our universities as a result of differential fees - an extraordinarily short-sighted approach given the wide-range of benefits so many of these students generate, both in the short-term to Canadian students and local economies, and in the long-term as our very best ambassadors and one-person trade missions.

I have talked, at times, as if Third World countries are far removed from the Canadian setting - and perhaps that echoes some of the discussion during this conference. Yet Canada has many regions that have characteristics far more akin to the situations in some developing nations than to the industrial heartlands of North America and Europe. For examples, coastal Newfoundland and Labrador, the Canadian North, the Interlake of Manitoba and parts of the Gaspe in Quebec ... for such regions, the more helpful comparative social science research is generated in developing nations and documented by such organizations as the World Bank, not by the Economic Council of Canada or by the European Commission. In the case of health services, too, I suspect experiences drawn from organizations such as the International Grenfell Association have much in common with those reported on by agencies as the

World Health Organization from Third World experiences. We can learn a great deal from the successes and difficulties of those countries.

To work in many parts of the developing world is an unsettling experience, many said that over the past two days ... unsettling because of the novelty of the culture and because of the sheer range and degree of the difficulties being faced ... unsettling also because of the incredible courage and cheerful optimism of so many of the people under such difficult circumstances ... It is unsettling because, upon return to Canada, we have to reappraise our own values, our own quite basic assumptions and many features of our own systems and 'disciplines' that we previously took for granted.

Conferences like this can be rather like Trojan horses - they inject awkward ideas and these become agents for change. If that is what the conference organizers had in mind, I suspect they will have succeeded. Canadian universities have been challenged, by a cross-section of health practitioners with solid Third World experience, to take careful stock both of present practices and of how to contribute more effectively to the desperate problems facing so many peoples in the less prosperous regions of the world. Canadian universities have been asked to re-assess their approaches to international health education - to forge linkages with institutions in developing nations (often through consortia frameworks to ensure adequate capacity) - to consider the establishment of Canadian international health and development centres - to re-examine the approaches being followed by Canadian university teams working in the developing nations - to rethink what they are offering medical and health science and administration students from abroad - to re-assess their approaches to research and research support (are they encouraging "useful" research by the Third World organizations, or are they merely causing it to be "mirror-images" of Canadian routines?) ... Nor did Canadian governmental development agencies escape unchallenged. Both CIDA and the IDRC have been asked to re-assess their priorities in the context both of the dimensions of the health problems of many Third World nations and in the context of a larger and more effective future contribution by Canadian universities. The challenges are not going to evaporate. It is hard to conceive of any that are more pertinent or demanding of urgent and constructive response.

I acknowledge the help of Majid Addo, Gabrielle Beckerman, Craig Johnston and Madeleine Smout - who diligently took notes of the conference proceedings. All are members of Dalhousie's new M.D.E. programme.

SUMMARIES OF CONCURRENT WORKING GROUPS

Concurrent working groups dealt with four thematic areas concerned with the role of Canadian Universities in Education, Service Research and Organization in International Health. Each theme was subdivided in two or three related subsidiary topic areas.

Education

The education working sessions discussed three sub-topics. These were, education of Canadian students about international health, providing health sciences education for students from developing countries and educating health science faculty from the developing countries.

The concensus pointed to the need for intercultural courses for students which would examine health within an ecological framework. It was felt that students should be encouraged to complete introductory courses in cultural anthropology as this would facilitate the acquisition of cultural sensitivity among students.

The importance of faculty support for student initiatives in becoming involved in international health was seen as being an essential aspect of programs. As well, course options for field assignments or independent contracted experiences in international health settings, could enrich program curricula. The groups stressed the need for the removal of artificial barriers between disciplines to allow students to become more aware of what related health disciplines do. Students ought to have opportunities early in their education to address health related cultural issues, as well as the social and political perspectives, which they might encounter in the areas of international health. In the discussions about training and education of Third World health science faculty, the salient issue centred around the availability and offerings of programs at the university and community college levels. It was felt that such opportunities should primarily take place in the developing country, with Canadian faculty travelling overseas to assist in the development of education programs. However where specialization or graduate work was the identified need, Third World health science faculty should travel here to obtain such training or education.

A number of concerns and issues were explored in educating students from developing countries. Curriculum content was not always seen as being relevant for international students nor was consideration of the setting, the culture and the institutions in which the students will function, always built into the programs of studies. Participants viewed these gaps as negative aspects. Other discussions focussed on the ability of Canadian universities to meet increased demands for admission of international students, differential fee structures, language differences, cross cultural approaches to education, and part-time employment for international students during their period of education.

Services

The concurrent sessions on service dealt with three topics, linking Canadian universities to service agencies in developing countries, providing consultation, and project development and implementation. The nature and quality of linkages were examined from the informal to formal relationships between Canadian universities and developing countries. The whole area of informal relationships was felt to be ultimately less productive and a waste of human resources as energies are concentrated at low levels of linkages, compared to the development of specific projects which are formally organized.

In regards to providing consultation, concerns were raised about the lack of mechanisms of quality control for identifying projects and the best qualified persons in Canada, to carry them out. The potential for mismatch between the capacities and interests of Canadian universities in international health and the complex, diverse needs for consultation on the part of developing countries, were seen to be a major gap in the service area. Several observations were made about the sensitivity of on-site and funding agency personnel to the health concerns of developing countries; this was not always viewed as positive or within the best interests of host countries. Another area which involved much discussion was the relationship between health professionals and governmental funding agencies in determining priorities for funding health activities and programs. It was felt that a better level of consultation between these two groups was essential for co-operative planning, elimination of duplication and improved collaboration.

Research

The research and organizational sessions explored problems and issues in collaborative research with developing countries, the strategies used, priority setting and coordination. Several observations were shared regarding access and the limitations to both research sites and funding. Those who are currently involved in joint research health projects identified areas which need to be grappled with: 1. The support both financial and administrative for research on issues of international health, 2. the relevance of research to developing countries, 3. the access and availability of health data in the developing countries. Other important variables for consideration are political committment and will, both at home and in host countries in the area of health research.

Organization

The organizational perspectives dealt with individual vs departmental entrepreneuralism, university-based centres and institutes, and inter-university co-ordination. The general concensus of these sessions was the overriding need for some of the government agencies to take a leadership role in establishing a mechanism for collaborative planning between universities, governments and international agencies.

Thirty-nine recommendations emanated from the various concurrent sessions. These recommendations are grouped under three areas, those pertaining to: I. International Canadian Aid Agencies, 2. the universities, 3. faculty within Canadian universities.

RECOMMENDATIONS TO THE AGENCIES

That a national Center of International Health be established.

That needs and values of developing countries be considered by donor agencies in order to develop better social understanding of the milieu in which a project is to evolve.

That CIDA recognize health as a legitimate activity in development and its potential to build lasting "people bridges".

That issues of health administration and planning be tackled, not purely medical problems.

That a human skills resources directory be developed for dissemination among universities.

That such a directory of resources, of ongoing projects and expertise in the various areas of health be organized by an appropriate agency, such as IDRC.

That dissemination of this information abroad be done via CIDA, Government Missions and non-governmental organizations.

That dissemination of this information also be directed to institutions other than the universities.

That CIDA and IDRC consider funding sabbatical leave projects of Canadian faculty who are interested in sharing their experience and expertise in developing countries.

That better consultation and co-operative planning take place with health professionals and the universities involved in international health, when determining health priorities for funding.

That IDO of AUCC take the leadership in establishing a mechanism for collaborative planning between universities and governmental agencies.

RECOMMENDATIONS TO THE UNIVERSITIES

That universities make more efforts to network and cooperate in international health development.

That each University Administration support a policy focusing on International Health. This must be emphasized at all administrative levels to achieve any success.

That universities be encouraged to have an office of international development or a co-ordinating officer for international health development activities.

That Canadian universities and agencies be cognizant of how far they can commit themselves to any given project.

That ethical guidelines be developed for involvements in international development, these should be developed by each university involved.

That indigenous universities in host countries become more involved in the collaborative efforts between host and developing countries.

That universitites come together to lobby all levels of government about institutional capacities and interest in Third World health.

RECOMMENDATIONS TO FACULTIES

That health problems in the Third World be identified prior to establishing training programs and projects.

That Canadian faculty carefully focus program proposals, by working with host countries to identify priorities.

That innovative health ideas be more aggressively marketed to developing countries.

That Canadian faculty learn the channels of power in government in host countries and in Canada, in order to propose programs which fit the objectives and plans at the government level.

That Canadian faculty use advocacy strategies to press the Canadian government to increase its level of funding of international health research, teaching and service.

That faculty bond together to form an advocacy group to increase the profile and perception of the value of international health activities within the academic community.

That recognition of international health activities be sought at both the departmental as well as the Presidential level within the university.

That faculty in Canada explore a wider perspective of sources beyond the tradiational medical and other health funding agencies when seeking funding for international health activities.

That funding be determined on the basis of a realistic time frame, for the project to be sucessful.

That the people of the developing country be trained to continue projects on an independent, self-sufficient basis, so that projects can be maintained successfully.

That role models are very important to students, therefore university faculty members should become actively involved in promoting International health concerns.

That project teams rather than individuals, become involved in research in international health development.

That there be an attempt to catalogue courses, or portions of courses which include International Health Issues. That these catalogues be made available to students either through the International Institutes on each campus, or through Student Services.

That interdisciplinary credit courses be offered utilizing actual case studies rather than hypothetical issues. Such courses should utilize students from developing countries as resource people, as well as professors who have travelled or worked in developing nations.

That university-wide seminars be established focusing on international health. That both seminars and courses emphasise that although many international health problems are shared by the Third World, the political, cultural and social circumstances create significant differences in the implementation of various health policies between countries.

That a regular exchange program with universities in developing countries be established for those intending to work abroad. Credit exchange should also be recognized.

That Canadian students be sensitized to international issues and problems through an interdisciplinary focus.

That student networks be established to provide a clearinghouse for identification of service agencies overseas and at home.

That incentives be found to encourage international students to return to work in their home countries.

That a follow-up system for graduates who return to their home countries be developed, which would provide support to them in adapting to the health care settings at home.

That the financial burden on international students be eased by making available employment opportunities, during the education period.

BIOGRAPHICAL NOTES

Margaret Catley-Carlson
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Born in Regina, Saskatchewan

Academic History

- B.A. (Honours), University of British Columbia (1966).
- Postgraduate work in International Relations and Latin American Affairs, Institute of International Relations, University of West Indies, St. Augustine, Trinidad and Tobago (1970).

Career

- Joined Department of External Affairs Canada (1966).
- Second Secretary, Canadian High Commission, Colombo, Sri Lanka (1968).
- Aid and Development Division, Department of External Affairs (1970).
- Aid and Development Division, Department of External Affairs (1971): UNCTAD III, Santiago de Chile (1972). Commodity policy; international tin, sugar, coffee and cocoa agreements.
- Commercial Policy Division, Department of External Affairs (1973):
  Canadian trade policy and commercial interests.
  Resource and investment policy.
- Economic Counsellor, Canadian High Commission, London (1975):
  Canadian economic interests in the United Kingdom and Europe.
  Conference on International Economic Cooperation, Paris (February 1976 to July 1977).
- Vice-President (Multilateral), Canadian International Development Agency (1978):
  Regional Bank replenishments and negotiations on capital.
  UNICEF Executive Board and UNDP Governing Council.
- Senior Vice-President/Acting President, Canadian International Development Agency (1979-1980).
- Assistant Under-Secretary, Department of External Affairs (1981):
  Trade, general economic, commodity and development policy.
  North/South relations.
- Assistant Secretary-General of the United Nations and Deputy Executive Director (Operations), UNICEF (1981).
- President, Canadian International Development Agency (1983).

Donald R. Campbell
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Academic History

- B.A., University of Toronto (1949).
- B.A., Balliol College, Oxford (1951).
- M.A., Balliol College, Oxford (1958).
- Honorary LL.D, University of Guelph (1974).
- Honorary LL.D, University of Winnipeg (1977).
- Fellow, Agricultural Institute of Canada (1979).
- Honorary Fellow , St. John's College, University of Manitoba (1980).
- Doctor of Canon Law, St. Andrew's College, University of Manitoba (1981).
- Honorary DS.C, McGill University (1982).
- Honorary LL.D, University of Manitoba (1984).

Career

- Pilot in RCAF (D.F.C. and Bar) (1942-45).
- Lecturer, Department of Agricultural Economics, Ontario Agricultural College, Guelph (1951-52).
- Professor & Head, Department of Agricultural Economics, Ontario Agricultural College, Guelph (1952-62).
- Consultant, Ford Foundation, Economic Advisor to Hashemite Kingdom of Jordan (1962-64).
- Professor, Department of Political Economy, University of Toronto (1964-76).
- Associate Dean, Faculty of Arts and Science, University of Toronto (1964-68).
- Consultant, Ford Foundation, Economic Advisor to Ministry of Finance and Planning, Kenya (1970-72).
- Principle, Scarborough College, University of Toronto (1972-76).
- President and Vice-Chancellor, University of Manitoba (1976-81).
- Consultant, Rockefeller Foundation, Economic Advisor, Office of the President, Kenya (1981-84).
- Director, International Development Office, Association of Universities and Colleges of Canada (AUCC), (1984 to present).

Dr. Campbell has served in many professional organizations, has served as a consultant in Barbados and Ghana, and is the author of numerous published articles concerning agricultural economics.

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- M.D., University of Toronto (1954).
- Specialty Training, Department of Obstetrics and Gynaecology, University of Toronto (1956-60).
- Fellow of the Royal College of Surgeons (Canada) (1960).

Career

- Research Fellow, Training Program for Steroid Biochemistry, Clark University, Worcester, Mass., and the Worcester Foundation for Experimental Biology, Shrewsbury, Mass. (1961-62).
- Research Associate, Department of Women's Diseases, Hormone Laboratory, Karolinska Hospital, Stockholm, Sweden (1962-63).
- Associate, Department of Obstetrics and Gynaecology, Faculty of Medicine, University of Toronto (1963-65).
- Assistant Professor, Department of Obstetrics and Gynaecology, Faculty of Medicine, University of Toronto (1965-78).
- Director, Health Systems Research Unit, University of Toronto (1967-73).
- Consultant, Systems Analysis and Programme Management, International Development Research Center (1972-75).
- Consultant, Office of Research Promotion and Development, World Health Organization (1975-76).
- Responsible Officer, Programme Management UNDP/World Bank/WHO Special Programme for Research and Training in Tropical Diseases, World Health Organization, Geneva, Switzerland (1976-85).

Dr. Wilson has held the position of Staff Obstetrician and Gynaecologist, Toronto General Hospital and has been a consultant to the Hospital for Sick Children and the Clarke University of Psychiatry, in Toronto.

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- M.Sc., University of British Columbia.
- Ph.D., (Fisheries Ecology), University of Michigan (1972).

Career

- Environmental Planner, Ford Foundation, Indonesia (1972-77).
- Director, Institute for Resource and Environmental Studies, Dalhousie University (1978 to present).

Dr. Hanson has also carried out a variety of environmental studies in British Columbia, the U.S.A. and in the West Indies. At Dalhousie, in addition to his work of teaching and program development at the Institute, Dr. Hanson has served as one of the principal investigators of the Dalhousie Ocean Studies Programme, and has been involved with the Pearson Center for International Development since its foundation.

Dr. Hanson's current interest at the Institute lies with the Environmental Manpower Development in Indonesia (EMDI) Program, a CIDA-funded cooperative project between Dalhousie University and the Ministry of State for Population and Environment in Indonesia.

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- B.A., University of Minnesota.
- M.HSA., University of Minnesota.
- M.A., (Political Science, Latin American Affairs) University of Minnesota.
- Ph.D., (Health Services, Epidemiology) University of Minnesota.

Career

- Director, Hungarian Student Refugee Center, World University Service (1956-57).
- Administrative Assistant, Mount Sinai Hospital, Minneapolis (1958-59).
- Administrative Resident and Administrative Assistant, The Johns Hopkins Hospital, Baltimore (1961-62).
- Executive Director, Association of University Programs in Health Administration (1965-75).
- Executive Secretary, Accrediting Commission on Education for Health Services Administration (1968-82).
- President, Association of University Programs in Health Administration (1976-present).

Dr. Filerman has served, and continues to serve, in several health, health administration and ecological organizations. He is an active consultant to at least 30 organizations in the United States and Canada, including P.A.H.O., the Kellogg Foundation, the Peace Corps and the Ontario Council of Graduate Studies. He has had many articles and reports published in a variety of journals and books.

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- M.D., University of Pernambuco, Recife, Brazil (1962).
- M.P.H., University of Chile (1968).

Career

- Chief, Health Division of N.E. Brazil Development Agency (1962-65).
- Professor, National School of Public Health, Rio de Janeiro.
- Secretary of Health (PIAUI) (1965-70).
- Director of Training Activities, Pan American Sanitary Bureau Health Planning Center, Santiago, Chile (1970-76).
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The Pearson Institute was established in June 1985 to strengthen Dalhousie University's work in the broad field of international development and co-operation, with a focus on Canada-Third World relationships. The Institute fosters faculty and student exchanges, appropriate linkage agreements with other institutions, international development studies, training and research programmes, conferences and seminars, public lectures and publications, the presentation of research findings and briefs to parliamentary committees, and so on. The Institute works as an integral part of the university fabric of academic departments and centres and institutions of specialization. The institute is administered by a twelve person Board of Directors, an executive director and three associates, and broadly guided by an International Advisory Council. For further information, write or phone the Institute at 1325 Edward Street in Halifax, Nova Scotia, B3H 3J5; Telephone: (902) 424-2142.

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One useful source of information on the international development activities of Canadian universities is the International Development Office (IDO). Functioning within the Association of Universities and Colleges of Canada, (AUCC), the IDO was established in September 1978 to enhance the role of Canadian Universities in international development co-operation. It organizes conferences and visits, links universities with one another and with appropriate sections of international development agencies. The office also provides information and advisory services to those interested in the work of Canadian Universities and Colleges in this field. The IDO publishes a quarterly Newsletter and occasional publications including a university directory of Canadian resource for International Development, which summarize a number of the international development activities of Canadian universities. Copies can be obtained from: International Development Office, AUCC, 151 Slater Street, Ottawa, Ontario, K1P 5N1; Telephone: (613) 563-1236.

Selected List of Development Publications by Dalhousie University Centres and Faculty associated with the Pearson Institute. Copies can be ordered through the Pearson Institute, 1321 Edward Street, Halifax, Nova Scotia, B3H 3J5, Canada.

Rodger, Erhardt, Arthur Hanson, Claude Sanger, Bernard Wood (eds), Canadian Aid and the Environment. (Halifax: Institute for Environmental Studies and North-South Institute, 1981)

Geoffrey B. Hainsworth (ed), Environmental Linkages: Indonesia-Canada Conference. (Halifax: Institute for Environmental Studies, 1985)

Tom Kent and Ian McAllister, Management for Development. (Washington: UPA, 1985. Dalhousie, Africa Studies Series)

David F. Luke and Timothy M. Shaw (eds.), Continental Crisis: The Lagos Plan of Action and Africa's Future. (Washington: UPA, 1984. Dalhousie, Africa Studies Series)

Ian McAllister (ed), Six International Development Projects. (Halifax: Centre for Development Projects, 1982)

Lewis Perinbam, North and South: Towards a New Interdependence of Nations. (Halifax: Centre for Development Projects, 1983)

Timothy M. Shaw and Yasen Tandon (eds), Regional Development at the National Level: Experiences from Canada and Africa. (Washington: UPA, 1985)

Agnes Aidoo, Gloria Nikoi and Jane Parpart (eds), Women and Development in Africa. In press, 1986.

Ian McAllister and David F. Luke (eds), Cooperation for Development, Canada and the Third World in the 1980s. In press, 1986.

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